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Postoperative Wound Infections:

The Influence of Ultraviolet Irradiation of the Operating Room and of Various Other Factors

Report of an Ad Hoc Committee * of the Committee on Trauma, Division of Medical Sciences, National Academy of Sciences-National Research Council

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APPENDIX A FORMS USED IN COLLECTING DATA

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Record room r Patient's name Source of drain 1. Incision p Organisms cult 2. Staph. coa 3. Alpha stre Characteristics, Coagulase test Pos. Neg.	(Last, first, minage roper 2. Vured (Check 1 g. pos. g. neg. p. cultured sta Antibio	or more box or s. Nonhe o. Anaer. phylococcus gram, S=Ser	site s. Remorkes) strep. emo. strep. strep. Nonsitive, R=Resist	te drain site	2. This s Date 4. Apper 1. S sp Kleb. olon	pecimen co	ollected drainage anguinous 2. Protet 3. Pseud 4. Clostr Unk	us sp. Iomonas sp. Idium sp.	PO day. 2. Purulent 5. Bact Unk	eroides sp organism
Patient's name Source of drain 1. Incision p Organisms cult 2. Staph. coa 3. Alpha stre Characteristics, Coagulase test Pos. Neg. (1) (2)	(Last, first, minage roper 2. Vured (Check 1 g. pos. g. neg. p. cultured sta Antibio	or more box or s. Nonhe o. Anaer. phylococcus gram, S=Ser	site s. Remorkes) strep. emo. strep. strep. Nonsitive, R=Resist	te drain site	2. This s Date 4. Apper 1. S sp Kleb. olon	pecimen co	ollected drainage anguinous 2. Protet 3. Pseud 4. Clostr Unk	us sp. Iomonas sp. Idium sp.	PO day. 2. Purulent 5. Bact Unk	eroides sp organism
Patient's name Source of drain 1. Incision p Organisms cult 2. Staph. coa 3. Alpha stree Characteristics, Coagulase test Pos. Neg. (1) (2) (3)	(Last, first, minage roper 2. Vured (Check 1 g. pos. g. neg. p. cultured sta Antibio	or more box or s. Nonhe o. Anaer. phylococcus gram, S=Ser	site s. Remorkes) strep. emo. strep. strep. Nonsitive, R=Resist	te drain site	2. This s Date 4. Apper 1. S sp Kleb. olon	pecimen corrance of corrections or size of the correction of the c	ollected drainage anguinous 2. Protet 3. Pseud 4. Clostr Unk	us sp. Iomonas sp. Idium sp.	PO day. 2. Purulent 5. Bact Unk	eroides sp organism
Patient's name Source of drain 1. Incision p Organisms cult 2. Staph. coa 3. Alpha stre Characteristics, Coagulase test Pos. Neg. (1) (2)	(Last, first, minage roper 2. Vured (Check 1 g. pos. g. neg. p. cultured sta Antibio	or more box or s. Nonhe o. Anaer. phylococcus gram, S=Ser	site s. Remorkes) strep. emo. strep. strep. Nonsitive, R=Resist	te drain site	2. This s Date 4. Apper 1. S sp Kleb. olon	pecimen co	ollected drainage anguinous 2. Protet 3. Pseud 4. Clostr Unk	us sp. Iomonas sp. Idium sp.	PO day. 2. Purulent 5. Bact Unk	eroides sp organism

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Record room number Cooperative Ultravi	olet Light Study		Registry number
BACTERIOL DATA-INFECTIONS OTI		3 -	_
DAIA-INIZETIONS OT	ILK IIIAN WOO		
Patient's name (Last, first, middle initial)	2. This specimen coll	ected	
	Date		PO day
3. Site of infection	☐ 6. Septicen	ia 🔲 🤋 Other	(Specify)
4. Organisms cultured (Check 1 or more boxes)	_	_	
	Kleb. : s	Proteus sp. Pseudomonas sp. Clostridium sp.	☐ s. Bacteroides sp. ☐ Unk. organism
5. Characteristics, cultured staphylococcus	, , , , , , , , , , , , , , , , , , ,		
Coagulase Antibiogram, S=Sensitive, R=Resistant test	Phage typin	g, NT=Not typable L	Jnk=Unknown
Pos. Neg. cillin mycin cycline phenicol mycin biocin	NT	Unk Ph	age type (Specify)
(1)		0 ———	
(2)			
(3) 🗆 🗆			
(4)			
(5)			
Cooperative Ultravi BACTERIOLOGIC PERSONNEL 1. Name (Last, first, middle initial)	AL DATA	2 - 2. Date specimen coll	Identification No ected (Month, day, year)
3. Source of culture			
1. Anterior nares 2. Skin 3. Other (Specify) 4. Organisms cultured (Check 1 or more boxes)			
□ None of following □ 1. Staph. coag. pos.	2. Staph. coag. r	eg. 🗆 4.	Beta strep.
5. Characteristics, cultured coagulase positive staphylococcus Antibiogram, S=Sensitive, R=Resistant	one cultured	Phage typ	ing
Peni- Strepto- Tetra- Chloram- Erythro- Novo- cillin mycin cycline phenicol mycin biocin	Not typable	Unk.	Specify type
(1)		o ———	
(2)		o ———	
(3)			
Remarks:			
Note: Separate report should be prepared for each culture specimen collec	ted.		

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	Operating	Room No.		C	oopera	tive Ultraviole	et Light Study	•			
						ERIOLOGICAL TING ROOM					
1. Plate	Shielded		nshielded	2.	Date exp	osed (Month, day	r, year)	3. 1	Time (Specify a.	m., p.m.)	
	nisms cultu None Staph. coa Staph. coa		☐ s. Al	boxes) pha strep. ita strep. onhemo. stre	•	a. Anaer. stre	b. [] 1. Parac] 2. Protec] 3. Pseud		. Clostridium sp. s. Bacteroides sp. Unk. organism	
5. Char	acteristics,			ositive staph				Phage typing			
	Peni- cillin	Strepto- mycin	Tetra- cycline	Chloram- phenicol	Erythro- mycin	Novo- biocin	Not typable			Specify type	
(1)											
(2)											
(3)											
6. Colo	ny count										
Remark	s :									. •	

Note: A separate report should be prepared for each plate culture made.

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Cooperative Ultraviolet Light Study Study Registry

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List ALL operations performed in study operating rooms.

	Hospital	Patient's name			Operation	4	Ward		Do not use	
	record	(Last, first, middle initial)	Date	Room	Operative procedure	EXC	floor	9	7	80
l										

-					
					volucion.
-					e ou tor e
-					ear of po
					ibaccasa
					latter
					abos bro
					year,
					if the national is to be evoluted from study second code letter corresponding to easing for evolution.
					Par ave
					1 4
					d od
	l	1	1		۳ ا

* If the patient is to be excluded from study, record code letter corresponding to reason for a. Open procedure not performed (vaginal; burn; donor site, split thickness skin greft).

- b. Procedures confined entirely to the oral cavity and nasopharynx.
- c. Proctological procedures, such as hemorrhoidectomy, excision of fistula in ano, and drainage perirectal abscess.
- d. Circumcision.
- e. Excision of toenail or fingernail.
- f. Incision and drainage of abscess confined to the integument.
 - g. Death in operating room.

	-		olet Light :		
	ORT OF	SURGERY		4 —	
Patient's name (Last, first, middle)	2	?. Home add	dress (Street nur	nber, city or town, state)	3. Phone number
Follow-up contacts, name		5. Address			6. Phone
		b			White \square_2 Nonwhite
birth	•		o. cox	7. 1.000	
	-		☐ Yes	□ No	□ Nanatudu astian
· · · · · · · · · · · · · · · · · · ·					
Date of this operation (Month, day, year	·)	12. Days p	oreop. hospita	lization Outpatien	13. Operating room number
Summary of operative procedures 1. Only 1 operation performed 3. Multiple operations performed to for each incision)					
Note: List only those operations per separate "Report of Surgery" (form 6	formed us) should be	ing a single e prepared f		sion. A	Closure
∫Operation					2. Secondary
³ (Diagnosis					3. Skin graft as primary
(Operation					means Other (Specify)
O (Diagnosis					☐ 9. Other (Specify)
(Operation				_	
- <					
Orain site provided	18	3. Anesthesi	a		
Check one or more)					 3. Intravenous 4. Infiltration
				J_	5. Spinal or epidural
		trach	ation with end leal intubation	10-	
Classification of operation*					
	ated				irty
Factors predisposing for infection 3. Severe obesity 4. Severe n			_	2. Steroid therapy	
			tion	23. Urgency	1. Elective
a.m. p.m.		hrs.	min		ent* 🔲 3. Emergency*
Personnel (List permanent personnel					
a. Surgeon					
Anesthetist		ants			
e. Nurse					
g. Technicians	h. Stude	nts and visit	ors. (Number	of persons)	
	Age (If under 1 year, report months) Year birth Patient previously operated on during yes, date Date of this operation (Month, day, year) Summary of operative procedures 1. Only 1 operation performed for each incision) Operations and diagnoses (Names and Note: List only those operations persperate "Report of Surgery" (form 6) Operation Diagnosis Operation Diagnosis Operation Diagnosis Coperation Diagnosis Operation Diagnosis Coperation Diagnosis Operation Diagnosis Coperation Diagnosis Operation O	Age (If under 1 year, report months) Year of birth Patient previously operated on during this hose is yes, date	Age (If under 1 year, report months) Year of birth Patient previously operated on during this hospital stay f yes, date	Age (if under 1 year, report months) Year of birth Age (if under 1 year, report months) Year of birth Age (if under 1 year, report months) Year of birth Age (if under 1 year, report months) Year of birth Age (if under 1 year, report months) Year of birth Age (if under 1 year, report months) Year of birth Age (if under 1 year, report months) Year of birth Age (if under 1 year, report months) Year of birth Age (if under 1 year, report months) Year of year, date 19	Age (If under 1 year, report months) Year of birth B. Sex 9. Race 1.

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Item 19, Classification of operation

Clean:

- a. No inflammation encountered.
- b. No break technique.
- c. Gastrointestinal, respiratory tracts not entered.
 - 1. Transection appendix or cystic duct considered clean in absence of acute inflammation.
 - 2. Entrance GU or biliary tracts clean in absence of infected urine or bile.

Clean contaminated:

- a. Gastrointestinal, respiratory tracts entered, without significant spillage.
- b. Break technique, minor.
- c. Entrance GU or biliary tracts in presence of infected urine or bile.

Contaminated:

- a. Major break technique, viz emergency cardiac arrest.
- b. Acute bacterial inflammation encountered, without pus.
- c. Spillage from GI tract.
- d. Traumatic wound, fresh, from relatively clean source.

Dirty:

- a. Pus encountered.
- b. Perforated viscus.
- c. Traumatic wound, old, or from dirty source.

Item 23, Urgency

Urgent: Not electively scheduled, but delay of surgery 12 hours or more permissible. Emergency: Surgery cannot be delayed 12 hours.

Item 24, Listing of personnel by name

a. Surgeon	e. Nurse
b. Assts. (incl. students assts.).	f. Circulating, assts.
c. Anesthetist	
d. Assistants	g. Technicians

NAS-NRC FUA-R-34-6b Feb. 1960 Record room number

Registry number

Cooperative Ultraviolet Light Study SUMMARY OF

<u> </u>	HOSPITAL COURSE		•	
1.	. Patient's name (Last, first, middle initial)			
2.	Wound evaluation in hospital terminated by 1. Discharge (follow-up continuing postdischarge) 2. 14th PO day of hospitalization (follow-up continuing in hospital) 3. 28th PO day of hospitalization (follow-up completed) 4. Wound reopened before healing (follow-up completed) 3. Date of evaluation (Month, dan postdischarge) Date	, year)		
4.	Prophylactic antibiotics administered		□ ₅ . E	rythomyc
5.	Inflammation of wound:			
6.	Tissue necrosis: 0. None 1. Attributable to ischemia due to tension of closure 2. Attributable to ischemia due to other factors Unknown			
7.	Postoperative drainage: 0. None Present. If present, check the following where 1. Spontaneous drainage 2. Formal ward drainage performed Serous Sangu			ent
	Discharge culture results 1. Stite 2. Pos 2. Pos 3. Def 3	infection ch absces sible infe inite infe a. Mild a. Modera a. Severe	s only ection ction tte	Infectio first noted PO day
	2. Spontaneous partial wound separation, healing secondary intention 3. Spontaneous complete wound separation, healing secondary intention	ceration		Unknown
11.	Rectal (oral + 1°) temperature postoperative—highest recorded 1. Less than 101° 2. 101°, but less than 103° 3, 103° or higher			
12.	Wound complications other than above (i.e., improperly applied casts and/or dressings, \	'olkman's	ischem	nic contra
13.	ture) 0, None 1. One or more (Specify) Other infections noted (A "Bacteriological Data" report will be completed and attached specimen cultured) Septi- Other	for each	"Other	Infection
	Noted after wound infection 0. 1. 2. 3. 4. 5. 0.			
14.	Final clinical appraisal of wound for infection:	se, or kr		
* See	e back of report form for a description of terms.			
		. 1 445	-1.004	

Note: A report of "Hospital Course" will be prepared for each hospitalized study patient on the 14th and 28th postoperative days of hospitalization, or on earlier discharge from the hospital, or when the wound is reopened before healing, or when a definite wound infection is noted.

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Item 8. Discharge characteristics:

All wound drainage will be cultured. Drainage from drain sites will be cultured at 72 hours and thereafter at intervals of not more than 3 days, as long as drainage continues. Drainage from undrained wounds will be cultured at first discovery and thereafter at 48-hour intervals. Drainage from open wounds will be cultured at 72 hours, thereafter at 3-day intervals, and immediately at the time of secondary closure.

Item 9, Clinical wound classification:

Wounds will be considered uninfected if they heal per primum without discharge. They will be considered infected in the presence of purulent drainage. Wounds which are inflamed without drainage, or which drain culture-positive serous fluid, will be classified "possible infection" at present. A record will be maintained of the objective characteristics of such wounds so that their incidence in the irradiated and control groups may be compared in the absence of agreement as to how they should be categorized.

Stitch abscess will be separately classified. Stitch abscess will be arbitrarily defined in wounds fulfilling the following conditions:

- a. Per primum healing without drainage from the incision.
- b. Inflammation confined to the point of suture penetration.
- c. Drainage of minimal amounts from the point of suture penetration.
- d. Healing within 72 hours of suture removal.

The category "stitch abscess" will not pertain to wounds in which the incision itself shows any change other than per primum healing process in the incision itself.

Cooperative Ultraviolet Light Study Record room number Registry number SUMMARY OF **POSTDISCHARGE STATUS** 1. Patient's name (Last, first, middle initial) 3. Date of evaluation (Month, day, year) 2. Wound evaluation terminated by 3. 28th PO day of observation ☐ 5. Definite wound infection noted Date..... PO day..... 14. Wound reopened before healing 12. Death (Specify cause) 1. By responsible surgeon 4. Nature of examination 12. At hospital, by surgical staff 14. Indirect, by contact with patient ☐ 3. Indirect, by contact with physician 9. Other 5. Inflammation of wound ☐ Unknown □ ₀. None 1. Inflammation present 6. Tissue necrosis 1. Attributable to ischemia due to tension of closure ☐ ₀, None 12. Attributable to ischemia due to other factors Unknown 7. Postoperative drainage 0. None Present If present, check the following where applicable 1, Spontaneous drainage 2, Formal ward drainage performed ☐ Sanguinous ☐ Purulent. ☐ Serous 9. Foul smelling 8. Discharge characteristics* (A "Bacteriological Data" report will be com-9. Clinical wound classification* pleted and attached for each discharge specimen cultured) ☐ 0. No infection Discharge culture results 1. Stitch abscess only 2. Possible infection Infection No Discharge Pos. Neg. ☐ 6. Definite infection first □ o. □ 1. ☐ Incision proper, serous or sanguinous □ 2. noted 🗌 3. Mild □ 1. □ 2. П о. ☐ Incision proper, purulent 4. Moderate □ o. ■ Wound drain site, serous or sanguinous PO □ 1. □ 2. 5. Severe day □ 1. □ o. □ 2. ☐ Wound drain site, purulent □ o. □ 1. □ 2. ☐ Remote drain site, serous or sanguinous □ o. Remote drain site, purulent □ 1. □ 2. ☐ Unknown 10. Wound healing 0. Without interference 1. Induced partial wound separation, healing secondary intention 1 2. Spontaneous partial wound separation, healing secondary intention 3. Spontaneous complete wound separation, healing secondary intention 4. Evisceration Unknown 11. Rectal (oral +1°) temperature postoperative-highest recorded 1. Less than 101° ☐ 3. 103° or higher 101°, but less than 103° ☐ Unknown 12. Wound complications other than above (i.e., improperly applied cases and/or dressings, Volkman's ischemic contrac-☐ ₀. None 1. One or more (Specify) 13. Other infections noted (A "Bacteriological Data" report will be completed and attached for each "Other Infection" specimen cultured) Othe GI Skin GH cemia (Specify) Noted before or in the absence □ 0. \square 1. □ 2. □ 3. □ 4. □ 5. □ 9. of wound infection □ 0. □ 1. □ 2. □ 3. □ 4. □ 5. □ 9. Noted after wound infection 14. Final clinical appraisal of wound for infection ☐ 0. No infection ☐ 9. Infection present If present: (Check reason and explain briefly)

* See back of report form for a description of terms.

Note: A report of "Postdischarge Status" will be prepared for each discharged patient at the end of the 4th postoperative week. The "Hospital Course" report will be filed for patients hospitalized at the end of the 4th postoperative week.

2. Occurring during operative procedure (i.e., known break in or difficulty with technique)

1. Due to inherent pre- or postoperative contamination (i.e., preexisting infectious disease, or known break in

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Item 8, Discharge characteristics:

All wound drainage will be cultured. Drainage from drain sites will be cultured at 72 hours, and thereafter at intervals of not more than 3 days, as long as drainage continues. Drainage from undrained wounds will be cultured at first discovery and thereafter at 48-hour intervals. Drainage from open wounds will be cultured at 72 hours, thereafter at 3-day intervals, and immediately at the time of secondary closure.

Item 9, Clinical wound classification:

Wounds will be considered uninfected if they heal per primum without discharge. They will be considered infected in the presence of purulent drainage. Wounds which are inflamed without drainage, or which drain culture-positive serous fluid, will be classified "possible infection" at present. A record will be maintained of the objective characteristics of such wounds so that their incidence in the irradiated and control groups may be compared in the absence of agreement as to how they should be categorized.

Stitch abscess will be separately classified. Stitch abscess will be arbitrarily defined in wounds fulfilling the following conditions:

- a. Per primum healing without drainage from the incision.
- b. Inflammation confined to the point of suture penetration.
- c. Drainage of minimal amounts from the point of suture penetration.
- d. Healing within 72 hours of suture removal.

The category "stitch abscess" will not pertain to wounds in which the incision itself shows any change other than per primum healing process in the incision itself.

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APPENDIX B

DETAILED DATA ON INCIDENCE OF SURGICAL WOUND INFECTION

Table B-1

Incidence of Infection by Age of Patient and Classification of Operation, Combined Hospitals

		Refined-	clean wo	mds	Other clean wounds			
I				Percent infected			Percent	infected
Age of	į	Number		Age*	-	Number		Age*
patient	Total	infected	Crude	adjusted	Total	infected	Crude	ad justed
All ages	6,656	222	3.3	3.4	5,034	372	7.4	7.3
< 1 yr.	169	6	3.6		65	2	3.1	
1-14 yrs.	616	14	2.3		243	14	5.8	
15-24 yrs.	560	13	2.3		334	10	3.0	
25-34 yrs.	858	30	3.5		522	33	6.3	
35-44 yrs.	1,178	32	2.7		969	65	6.7	
45-54 yrs.	1,276	40	3.1		1,065	75	7.0	
55-64 yrs.	1,054	47	4.5		915	81	8.9	
65-74 yrs.	673	27	4.0		658	69	10.5	
75+ yrs.	246	13	5.3		241	22	9.1	
Unknown	26	0	0.0		22	1	4.5	
	I	i	1		1			

		Clean-conta	minated v	wounds	Contaminated wounds			
			Percent	infected			Percent	infected
Age of		Number		Age*		Number		Age*
patient	Total	infected	Crude	ad justed	Total	infected	Crude	ad justed
All ages	2,589	280	10.8	10.1	681	111	16.3	17.1
< 1 yr.	23	1	4.3		8	2	25.0	
1-14 yrs.	107	8	7.5		49	4	8.2	
15-24 yrs.	181	16	8.8		110	7	6.4	
25-34 yrs.	235	13	5.5		73	8	11.0	
35-44 yrs.	293	27	9.2		90	14	15.6	
45-54 yrs.	500	55	11.0		93	18	19.4	
55-64 yrs.	551	68	12.3		119	28	23.5	
65-74 yrs.	499	72	14.4		93	20	21.5	
75+ yrs.	197	19	9.6		45	9	20.0	
Unknown	3	1	33.3		1	1	100.0	

		Dirty w	ounds					
l			Percent	t infected	Clas	sification	unknown	Adjusted
Age of		Number		Age*		Number	Percent	percent
patient	Total	infected	Crude	ad justed	Total	infected	infected	infected*
All ages	581	166	28.6	29.7	72	6	8.3	11
< 1 yr.	5	3	60.0		1	0	0.0	6.6
1-14 yrs.	43	11	25.6		4	0	0.0	5.4
15-24 yrs.	55	13	23.6	i	5	0	0.0	4.6
25-34 yrs.	73	13	17.8		6	1	16.7	5.6
35-44 yrs.	76	17	22.4		13	0	0.0	6.4
45-54 yrs.	89	40	44.9		16	1	6.2	8.0
55-64 yrs.	116	35	30.2		19	2	10.5	9.0
65-74 yrs.	84	27	32.1		7	1	14.3	9.7
75+ yrs.	39	7	17.9		1	1	100.0	8.4
Unknown	1	0	0.0		0	0	-	
	lt		l		1		<u> </u>	<u> </u>

^{*}Age adjusted: Infection rates for specific classifications of operations adjusted to a uniform age distribution.

^{**}Infection rates by age of patient adjusted to a uniform classification of operation distribution.

Table R-2

Incidence of Infection by Age of Patient and Hospital

	11	Hospita	1 #1		Hospital #2				
	1		Percent	infected			Percen	tinfected	
Age of	Total	Infected		Age*	Total	Infected		Age*	
patient	wounds	wounds	Crude	ad justed	wounds	wounds	Crude	ad justed	
All ages	2,338	112	4.8	5.3	2,965	209	7.0	7.1	
< 1 yr.	10	1	10.0		26	2	7.7		
1-14 yrs.	76	4	5.3		146	5	3.4		
15-24 yrs.	115	3	2.6		224	9	4.0		
25-34 yrs.	263	8	3.0		401	24	6.0		
35-44 yrs.	548	13	2.4		612	35	5.7		
45-54 yrs.	619	26	4.2		558	40	7.2		
55-64 yrs.	386	23	6.0		505	45	8.9		
65-74 yrs.	241	24	10.0		361	38	10.5		
75+ yrs.	68	9	13.2		125	11	8.8		
Not reported	12	1 1	8.3		1 7	0	0.0		

	H	Hospita	1 #3		Hospital #4				
			Percent	t infected		1	Percent	infected	
Age of	Total	Infected		Age*	Total	Infected		Age*	
patient	wounds	wounds	Crude	ad justed	wounds	wounds	Crude	ad justed	
All ages	2,573	302	11.7	12.2	2,567	78	3.0	3.3	
< 1 yr.	68	6	8.8		94	0	0.0		
1-14 yrs.	273	22	8.1		336	6	1.8		
15-24 yrs.	313	27	8.6		239	4	1.7		
25-34 yrs.	320	21	6.6		302	5	1.7		
35-44 yrs.	364	50	13.7		316	9	2.8		
45-54 yrs.	375	47	12.5		350	19	5.4		
55-64 yrs.	406	58	14.3		374	15	4.0		
65-74 yrs.	325	53	16.3		327	12	3.7		
75+ yrs.	116	16	13.8		224	8	3.6		
Not reported	13	2	15.4		5	0	0.0		

	H	Hospita	1 #5		
			Percen	t infected	İ
Age of	Total	Infected wounds	Crude	Age* ad justed	Percent of wounds infected by age, adjusted to a uniform hospital distribution
<u>patient</u>	wounds				Justed to a difform hospital distilluctor
All ages	5,170	456	8.8	8.6	
< 1 yr.	73	5	6.8		6.7
1-14 yrs.	231	14	6.1		5.1
15-24 yrs.	354	16	4.5		4.3
25-34 yrs.	481	40	8.3		5.7
35-44 yrs.	779	48	6.2		6.2
45-54 yrs.	1,137	97	8.5		7.8
55-64 yrs.	1,103	120	10.9		9.2
65-74 yrs.	760	89	11.7		10.7
75+ yrs.	236	27	11.4		10.3
Not reported	16	0	0.0		

^{*} Age adjusted: Infection rates for specific hospitals adjusted to a uniform age distribution.

Table B-3

Incidence of Infection by Age of Patient and
Duration of Operation, Combined Hospitals

	L	Inder 1/2 ho	ur durati	on .	II .	1/2-1 hour	duration	
1		1	Percent	infected			Percent	infected
Age of	Total	Infected		Age*	Total	Infected		Age*
patient	wounds	wounds	Crude	adjusted	wounds	wounds	Crude	adjusted
All ages	1,340	48	3.6	3.9	3,055	181	5.9	6.2
klyr.	19	0	0.0		82	6	7.3	
1-14 yrs.	87	6	6.9		291	13	4.5	
15-24 yrs.	126	3	2.4		324	14	4.3	
25-34 yrs.	179	3	1.7		373	17	4.6	
35-44 yrs.	261	5	1.9		488	21	4.3	
45-54 yrs.	273	1 9	3.3		573	36	6.3	
55-64 yrs.	203	12	5.9		439	41	9.3	
65-74 yrs.	122	7	5.7		330	29	8.8	
75+ yrs.	56	3	5.4		140	4	2.9	
Unknown	14	0	0.0		15	ó l	0.0	
		1			1 - 1		•••	

		1-2 hours	duration		J	2-3 hours	duration	
		1	Percent	infected			Percent	infected
Age of	Total	Infected		Age*	Total	Infected		Age*
patient	wounds	wounds	Crude	adjusted	wounds	wounds	Crude	adjusted
All ages	5,671	363	6.4	6.5	2,806	253	9.0	8.8
< 1 yr.	109	3	2.8		45	5	11.1	
1-14 yrs.	438	13	3.0		140	10	7.1	
15-24 yrs.	460	26	5.7		168	4	2.4	
25-34 yrs.	682	41	6.0		309	19	6.1	
35-44 yrs.	949	50	5.3		489	40	8.2	
45-54 yrs.	1,077	72	6.7		571	49	8.6	
55-64 yrs.	948	74	7.8		545	54	9.9	
65-74 yrs.	695	59	8.5		390	51	13.1	
75+ yrs.	299	24	8.0		144	20	13.9	
Unknown	14	1 i	7.1		5	-i	20.0	

		3-4 hours	duration			4-5 hours	duration	
l			Percent	infected	l T		Percent	infected
Age of	Total	Infected		Age*	Total	Infected		Age*
patient	wounds	wounds	Crude	adjusted	wounds	wounds	Crude	adjusted
All ages	1,295	129	10.0	9.5	651	71	10.9	10.5
< 1 yr.	9	0	0.0		4	0	0.0	
1-14 yrs.	69	6	8.7		21	2	9.5	
15-24 yrs.	81	5	6.2		31	2	6.5	
25-34 yrs.	116	9	7.8		59	6	10.2	
35-44 yrs.	205	15	7.3		110	17	15.5	
45-54 yrs.	257	26	10.1		131	ii l	8.4	
55-64 yrs.	272	26	9.6		147	11	7.5	
65-74 yrs.	220	33	15.0		113	15	13.3	
75+ yrs.	65	9	13.8		33	6	18.2	
Unknown	1	0	0.0		2	il	50.0	

		5-6 hours	duration			6 hours dura	tion or	nore
()			Percent	infected			Percent	infected
Age of	Total	Infected		Age*	Total	Infected		Age*
patient	wounds	wounds	Crude	adjusted	wounds	wounds	Crude	adjusted
All ages	337	52	15.4	13.4	267	47	17.6	15.0
< 1 yr.	0	0	-		0	0	-	
1-14 yrs.	5	1	20.0	ì	5	0	0.0	
15-24 yrs.	24	1	4.2	ľ	20	3	15.0	
25-34 yrs.	23	1	4.3		11	1	9.1	
35-44 yrs.	42	1	2.4		35	6	17.1	
45-54 yrs.	66	13	19.7	j	53	8	15.1	
55-64 yrs.	103	23	22.3		84	18	21.4	
65-74 yrs.	61	10	16.4		50	10	20.0	
75+ yrs.	12	2	16.7		9	1	11.1	
Unknown	1	0	0.0		0	0	-	
1	ł	1	l		1	j	i	

		Duration not	reported	
Age of patient	Total wounds	Infected wounds	Percent infected	Percent of wounds infected by age, adjusted to a uniform duration of operation distribution
All ages	191	13	6.8	
< 1 yr.	3	0	0.0	4.5
1-14 yrs.	6	0	0.0	5.5
15-24 yrs.	11	1	9.1	4.7
25-34 yrs.	15	1	6.7	5.7
35-44 yrs.	40	0	0.0	6.1
45-54 yrs.	38	5	13.2	7.5
55-64 yrs.	33	2	6.1	9.0
65-74 yrs.	33	2	6.1	10.3
75+ yrs.	11	2	18.2	9.0
Unknown	1	0	0.0	

^{*}Age adjusted: Infection rates for specific durations of operations adjusted to a uniform age distribution.

Table B-4

Incidence of Infection by Age of Patient and Nutritional and Metabolic Patient Factors, Combined Hospitals

		Diabet	0.5			Without d	labetes	
	1		Percen	t infected		l	Percent infect	
Age of patient	Total wounds	Infected wounds	Crude	Age* adjusted	Total wounds	Infected wounds	Crude	Age*
All ages	356	37	10.4	7.2	15,128	1,108	7.3	7.4
< 1 yr.	0	0	-		268	12	4.5	
1-14 yrs.	0	0	-		1,052	50	4.8	
15-24 yrs.	3	0	0.0		1,232	59	4.8	
25-34 yrs.	7	0	0.0		1,749	96	5.5	
35-44 yrs.	30	1	3.3		2,574	152	5.9	
45-54 yrs.	61	9	14.8		2,951	219	7.4	
55-64 yrs.	103	11	10.7		2,646	249	9.4	
65-74 yrs.	112	13	11.6		1,885	202	10.7	
75+ yrs.	40	3	7.5		718	66	9.2	
Unknown	11 0	ا آ			53	1 3	5.7	

		Steroi	therap	7	No steroid therapy				
			Percent	infected			Percent	infected	
Age of	Total	Infected		Age*	Total	Infected		Age*	
patient	wounds	wounds	Crude	ad justed	wounds	wounds	Crude	ad justed	
All ages	119	19	16.0	12.2	15,365	1,126	7.3	7.4	
< 1 yr.	1	0	0.0		267	12	4.5		
1-14 yrs.	2	0	0.0		1,050	50	4.8		
15-24 yrs.	10	4	40.0		1,225	55	4.5		
25-34 yrs.	15	2	13.3		1.741	94	5.4		
35-44 yrs.	10	0	0.0		2,594	153	5.9		
45-54 yrs.	21	2	9.5		2,991	226	7.6		
55-64 yrs.	38	10	26.3		2,711	250	9.2		
65-74 yrs.	17	0	0.0		1,980	215	10.9		
75+ yrs.	5	1	20.0		753	68	9.0		
Unknown	ll o	i o			53	3	5.7		

	1	Severe	obesity		Wit	hout severe	e obesit	7
			Percen	t infected		1	Percen	tinfected
Age of	Total	Infected		Age*	Total	Infected		Age*
patient	wounds	wounds	Crude	ad justed	wounds	wounds	Crude	ad justed
All ages	166	30	18.1	18.5	15,318	1,115	7.3	7.3
< 1 yr.	1	0	0.0		267	12	4.5	
1-14 yrs.	11 4	1	25.0		1,048	49	4.7	
15-24 yrs.	14	4	28.6		1,221	55	4.5	
25-34 yrs.	13	2	15.4		1,743	94	5.4	
35-44 yrs.	27	3	11.1		2,577	150	5.8	
45-54 yrs.	36	9	25.0		2,976	219	7.4	
55-64 yrs.	29	4	13.8		2,720	256	9.4	
65-74 yrs.	35	5	14.3		1,962	210	10.7	
75+ yrs.	6	2	33.3		752	67	8.9	
Unknown	ll i	Ō	0.0		52	3	5.8	
Unknown	1	•	0.0		52	3	5.8	

		Severe me	lnutriti	PC.	Wit	hout sever	e melnutr	ition
			Percen	t infected			Percent	infected
Age of	Total	Infected		Age*	Total	Infected		Age*
patient	wounds	wounds	Crude	ad justed	wounds	wounds	Crude	ad justed
All ages	67	15	22.4	18.9	15,417	1,130	7.3	7.4
< 1 yr.	1	0	0.0		267	12	4.5	
1-14 yrs.	0	0	-		1,052	50	4.8	
15-24 yrs.	ll i	0	0.0		1,234	59	4.8	
25-34 yrs.] 3	0	0.0		1,753	96	5.5	
35-44 yrs.	7	2	28.6		2,597	151	5.8	
45-54 yrs.	12	3	25.0		3,000	225	7.5	
55-64 yrs.	27	5	18.5		2,722	255	9.4	
65-74 yrs.	ii	5	45.5		1,986	210	10.6	
75+ yrs.	-5	ا ہ	0.0		753	69	9.2	
Unknews	l ő	ا ه ا	-		53	3	5.7	

			net reported		of wounds d to a uni of wounds	form dist	
Age of patient	Total wounds	Infected wounds	Percent infected	Diabetes			Malnutrition
All ages	129	12	9.3	li .			
< 1 yr.	3	2	66.7	**	**	**	**
1-14 yrs.	10	ī	10.0	**	**	**	**
15-24 yrs.	10	ō	0.0	**	4.7	4.7	**
	ii		18.2	**	5.4	5.5	**
25-34 yrs.	15	5	13.3	5.8	5.8	5.8	**
35-44 yrs.		1 1	3.7	7.5	7.6	7.6	7.5
45-54 yrs.	27	;	4.0	9.4	9.3	9.4	9.4
55-64 yrs.	25			10.7	10.8	10.7	10.7
65-74 yrs.	17	1	5.9		10.0	**	**
75+ yrs.	11	2	18.2	9.1	**	**	
Unknown	0	0	-				

^{*}Age adjusted: Infection rates for specific metabolic or nutritional factors adjusted to a uniform age distribution.

^{**}Fewer than 10 wounds for patients with specific metabolic or nutritional conditions. Adjusted rates not computed.

Table B-5

Incidence of Infection by Age of Patient and Duration of Preoperative Hospitalization, Combined Hospitals

	11	Outpati	ent			Under 2	days	
			Percent	infected			Percen	tinfected
Age of	Total	Infected		Age*	Total	Infected		Age*
patient	wounds	wounds	Crude	ad justed	wounds	wounds	Crude	ad justed
All ages	403	12	3.0	3.0	6,783	405	6.0	6.4
< 1 yr.	O	•	-		131	5	3.8	
1-14 yrs.	9	0	0.0		652	29	4.4	
15-24 yrs.	59	0	0.0		782	34	4.3	
25-34 yrs.	71	3	4.2		949	45	4.7	
35-44 yrs.	70	1	1.4		1,289	65	5.0	
45-54 yrs.	67	3	4.5		1,259	85	6.8	
55-64 yrs.	74	4	5.4		858	72	8.4	
65-74 yrs.	27	0	0.0		614	49	8.0	
75+ yrs.	10	1	10.0		231	19	8.2	
Unknown	16	1 0	0.0		18	2	11.1	

	2-6 da	ys			7-13 d	ays	
		Percent	infected	1		Percent	infected
Total	Infected	Om. do	Age*	Total	Infected	0	Age*
							adjusted
	354		/ • T		176		8.8
84	3	3.6		21	4	19.0	
288	12	4.2		60	3	5.0	
244	11	4.5		81	7	8.6	
466	25	5.4		166	14	8.4	
772	44	5.7		273	23	8.4	
988	80	8.1		398	26	6.5	
988	74	7.5		442	50	11.3	
725	81	11.2		346	38	11.0	
254	23	9.1		142	11	7.7	
11	1 1	9.1		11 3	0	0.0	
	wounds 4,820 84 288 244 466 772 988 988 725	Total Infected wounds 4,820 354 84 3 288 12 244 11 466 25 772 44 988 80 988 74 725 81 254 23	Total Infected wounds	Total Infected wounds wounds 4,820 354 7.3 7.1 3.6 288 12 4.2 244 11 4.5 466 25 5.4 772 44 5.7 988 80 8.1 988 74 7.5 725 81 11.2 254 23 9.1	Total Infected wounds wounds Percent infected Age* wounds A,820 354 7.3 7.1 1,932 21 288 12 4.2 60 244 11 4.5 81 466 25 5.4 166 772 44 5.7 273 988 80 8.1 398 988 74 7.5 725 81 11.2 346 254 23 9.1 142	Total Infected wounds	Total wounds Infected wounds Age* adjusted Total wounds Infected wounds Crude 4,820 354 7.3 7.1 1,932 176 9.1 84 3 3.6 21 4 19.0 288 12 4.2 60 3 5.0 244 11 4.5 81 7 8.6 466 25 5.4 166 14 8.4 772 44 5.7 273 23 8.4 988 80 8.1 398 26 6.5 988 7 7.5 442 50 11.3 725 81 11.2 346 38 11.0 254 23 9.1 142 11 7.7

		14-20 d	ays			21 days or	more	
			Percen	tinfected		1	Percent	infected
Age of	Total	Infected		Age*	Total	Infected		Age*
patient	wounds	wounds	Crude	adjusted	wounds	wound s	Crude	ad justed
All ages	746	82	11.0	10.9	773	114	14.7	13.7
< 1 yr.	12	0	0.0		21	2	9.5	
1-14 yrs.	24	4	16.7		17	2	11.8	
15-24 yrs.	25	2	8.0		41	5	12.2	
25-34 yrs.	52	6	11.5		45	4	8.9	
35-44 yrs.	93	9	9.7		 90	10	11.1	
45-54 yrs.	145	13	9.0		165	21	12.7	
55-64 yrs.	191	28	14.7		191	29	15.2	
65-74 yrs.	138	14	10.1		139	30	21.6	
75+ yrs.	64	6	9.4		62	11	17.7	
Unknown	2	0	0.0		2	0	0.0	
I	11		l		lt	1	1	

	Days pr	eoperative h	nospitalization ced	Percent of wounds infected by age, ad-
Age of patient	Total wounds	Infected wounds	Percent infected	justed to a uniform distribution of days preoperative hospitalization
All ages < 1 yr. 1-14 yrs. 15-24 yrs. 25-34 yrs. 35-44 yrs. 45-54 yrs. 55-64 yrs. 65-74 yrs.	156 2 12 13 18 32 17 30 25	14 0 1 0 1 3 1 4	9.0 0.0 8.3 0.0 5.6 9.4 5.9 13.3 16.0	5.6 5.3 5.4 5.9 6.1 7.5 9.0 9.9
75+ yrs. Unknown	6	0	0.0	

^{*}Age adjusted: Infection rate for specific durations of preoperative hospitalization adjusted to a uniform age distribution.

Table B-6

Incidence of Infection by Sex of Patient and Classification of Operation, Combined Hospitals

		Male			Female		v.	Sex not reported	rted	Race
Classification	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	percent
of operation	wounds	wounds	infected	wounds	spunom	infected	wounds	wounds	infected	inferted**
Total wounds	7,356	588	8.0	8,242	568	6.9	15	1	6.7	222
Refined-clean	3,181	104	3,3	3,471	118	3.4	4	0	0.0	7 8
Other clean	1,940	149	7.7	3,090	223	7.2	4	. 0	0.0	7 7
lean-contaminated	1,413	162	11.5	1,173	117	10.0	· m	-	33.3	701
Contaminated	418	63	15,1	263	84	18,3	0			16.8
Dirty	361	106	29.4	216	09	27.8	4	. 0	0.0	28.6
Jnknown	43	4	9.3	29	2	6.9	0	0	} •	2
Addisorphy rates			7 -							

*Adjusted rate: Incidence of infection for each sex adjusted to a uniform classification of operation distribution.

**Percent of wounds infected by classification of operation adjusted to a uniform sex distribution.

Table B-7

Incidence of Infection by Race of Patient and Hospital

		White			Non-white		Race	Race not reported	pe :	Race ad lusted	
	Total	Infected	Percent	Total	Infected	Percent	Tota1	Infected	Percent	percent	-
Hospital	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	infected**	
Combined hospitals	Ξ	889	7.6	3,613	246	8•9	255	22	8.6		_
	1,892	83	4.4	430	29	6.7	16	0	0.0	6*7	
2	2,184	147	6.7	268	62	8.1	13	0	0.0	7.0	
e -	2,265	275	12.1	135	01	7.4	173	17	8.6	11.0	
4	1,057	36	3.4	1,500	41	2.7	10	H	10.0	3,2	
5	4,347	348	8.0	780	104	13,3	7 3	4	9.3	9.2	
											_
Adjusted rate*			7.1			9 ° 8					1
7											

*Adjusted rate: Incidence of infection for each race adjusted to a uniform hospital distribution.

**
Percent of wounds infected by hospital adjusted to a uniform racial distribution.

Table B-8

Incidence of Infection by Race of Patient and Nutritional and Metabolic Patient Factors, Combined Hospitals

		Dia	betes			Without	diabetes	
			Percent	t infected			Percent	tinfected
Race of patient	Total wounds	Infected wounds	Crude	Race* adjusted	Total wounds	Infected wounds	Crude	Race* adjusted
All races White Nonwhite Unknown	356 210 142 4	37 22 15 0	10.4 10.5 10.6 0.0	10.5	15,128 11,444 3,437 247	1,108 860 226 22	7.3 7.5 6.6 8.9	7.3

		Steroid	therapy		W	ithout stero	oid thera	ру
			Percen	t infected			Percen	t infected
Race of	Total	Infected		Race*	Total	Infected		Race*
patient	wounds	wounds	Crude	ad justed	wounds	wounds	Crude	adjusted
All races	119	19	16.0	15.2	15,365	1,126	7.3	7.3
White	94	16	17.0		11,560	866	7.5	
Nonwhite	21	2	9.5		3,558	239	6.7	
Unknown	4	1	25.0		247	21	8.5	

		Severe	obesity		W:	ithout seve	re obesity	7
			Percent	tinfected			Percent	infected
Race of	Total	Infected		Race*	Total	Infected		Race*
patient	wound s	wounds	Crude	ad justed	wounds	wounds	Crude	ad justed
All races	166	30	18.1	17.8	15,318	1,115	7.3	7.2
White	132	27	20.5		11,522	855	7.4	
Nonwhite	33	3	9.1		3,546	238	6.7	
Unknown	1	0	0.0		250	22	8.8	
ļ	11				ł			

		Severe mal	nutrition	1	With	out severe	malnutrit	ion
			Percent	infected			Percent	infected
Race of	Total	Infected		Race*	Total	Infected	1	Race*
patient	wounds	wounds	Crude	ad justed	wounds	wounds	Crude	ad justed
All races	67	15	22.4	18.4	15,417	1,130	7.3	7.3
White	58	14	24.1		11,596	868	7.5	
Nonwhite	8	0	0.0		3,571	241	6.7	
Unknown	1	1	100.0		250	21	8.4	
	11	l	i		į į			

	Pat	ient facto	rs not reported				ed by race, stribution
Race of	Total	Infected		1	of wou	ınds for:	
patient	wounds	wound s	Percent infected	Diabetes	Steroid	Obesity	Malnutrition
All races	129	12	9.3		1		
White	91	7	7.7	7.6	7.6	7.5	7.6
Nonwhite	34	5	14.7	6.7	6.7	6.7	6.7
Unknown	4	0	0.0	11			
	1 .			<u> </u>		<u> </u>	

^{*}Race adjusted: Incidence of infection for each nutritional and metabolic factor adjusted to a uniform racial distribution.

Table B-9

Incidence of Infection by Race and Age of Patient, Combined Hospitals

		W	hite		Non-white				
			Percent	infected			Perce	nt infected	
Age of	Total	Infected		Age*	Total	Infected		Age*	
patient	wounds	wounds	Crude	adjusted	wounds	wounds	Crude	adjusted	
All ages	11,745	889	7.6	7.5	3,613	246	6.8	7.2	
< 1 yr.	146	8	5.5		116	6	5.2		
1-14 yrs.	723	40	5.5		323	11	3.4		
15-24 yrs.	897	47	5.2		321	11	3.4		
25-34 yrs.	1,226	70	5.7		515	26	5.0		
35-44 yrs.	1,934	107	5.5		659	43	6.5		
45-54 yrs.	2,378	171	7.2		627	53	8.5		
55-64 yrs.	2,213	210	9.5		515	46	8.9		
65-74 yrs.	1,622	178	11.0		360	36	10.0		
75+ yrs.	582	55	9.5		175	14	8.0		
Unknown	24	3	12.5		2	0	0.0		
1		Į.	l		ł	1	ł		

		Race not re	eported	
Age of	Total	Infected		Percent of wounds infected by age,
patient	wounds	wounds	Percent infected	adjusted to a uniform age distribution
All ages	255	22	8.6	
< 1 yr.	9	0	0.0	5.4
1-14 yrs.	16	0	0.0	5.0
15-24 yrs.	27	1	3.7	4.8
25-34 yrs.	26	2	7.7	5.5
35-44 yrs.	26	5	19.2	5.7
45-54 yrs.	34	5	14.7	7.5
55-64 yrs.	46	5	10.9	9.4
65-74 yrs.	32	2	6.2	10.8
75+ yrs.	12	2	16.7	9.1
Unknown	27	0	0.0	
[

^{*}Age adjusted: Incidence of infection for each race adjusted to a uniform age distribution.

Table B-10

Incidence of Infection by Race of Patient and Classification of Operation, Combined Hospitals

		Whit	е		Non-white				
Classification	Total	Infected	Percen	t infected	Total	Infected	Percen	t infected	
of operation	wounds	wounds	Crude	Adjusted*	wounds	wounds	Crude	Adjusted*	
All classifications	11,745	889	7.6	7.8	3,613	246	6.8	6.3	
Refined-clean	5,037	169	3.4		1,517	49	3.2		
Other clean	3,924	303	7.7		1,009	65	6.4		
Clean-contaminated	1,887	211	11.2		670	61	9.1		
Contaminated	463	85	18.4		208	23	11.1		
Dirty	374	117	31.3		198	46	23.2		
Unknown	60	4	6.7		11	2	18.2		
	l I	1	1			i	1		

		Race no	ot reported	Percent of wounds infected by classification of operation adjusted
Classification	Total	Infected		to a uniform classification of
of operation	wounds	wounds	Percent infected	operation distribution
All classifications	255	22	8.6	
Refined-clean	102	4	3.9	3.4
Other clean	101	4	4.0	7.4
Clean-contaminated	32	8	25.0	10.7
Contaminated	10	3	30.0	16.7
Dirty	9	3	33.3	29.4
Unknown	1	0	0.0	

^{*}Adjusted: Incidence of infection for each race adjusted to a uniform classification of operation distribution.

Table B-11

Incidence of Infection by Certain Metabolic and Nutritional Patient Factors and Classification of Operation, Combined Hospitals

			SILICACIO						
		Dia	betes				Withou	t diabe	tes
Classification	Total	Infecte	d Percen	t infecte	d	Total	Infect	ed Per	cent infected
of operation	wounds	wounds	Crude	Ad justed	<u> </u> *	wounds	wound	s Cru	de Adjusted*
All classifications	356	37	10.4	7.9		15,128	1,108	7.	3 7.4
Refined-clean	104	2	1.9			6,524	219	3.	4
Other clean	107	10	9.3			4,889	358	7.	3
Clean-contaminated	71	11	15.5			2,486	269	10.	8
Contaminated and dirty	69	13	18.8			1,180	259	21.	9
Unknown	5	1	20.0			49	3	6.	1
	L	<u> </u>				L	<u> </u>		
			d therapy				thout st		
Classification	Total	Infecte		t infecte		Total	Infect	1	cent infected
of operation	wounds	wounds		Adjusted	*	wounds			de Adjusted*
All classifications	119	19	16.0	15.2		15,365			
Refined-clean	29	3	10.3			6,599	218		-
Other clean	55	6	10.9			4,941	362		
Clean-contaminated	19	6	31.6			2,538			
Contaminated and dirty	16	4	25.0			1,233	268		
Unknown	0	0	-			54	4	7.	4
		Severe	obesity		=	Wi	esity		
Classification	Total		d Percen	t infecte	ed	Total	Infect		cent infected
of operation	wounds	wounds		Ad justed	_	wounds	wound		de Adjusted*
All classifications	166	30	18.1	17.2		15,318			
Refined-clean	45	5	11.1			6,583			3
Other clean	65	17	26.2			4,931			
Clean-contaminated	40	4	10.0			2,517			
Contaminated and dirty	14	4	28.6			1,235		1	
Unknown	2	0	0.0			52		7.	7
			-1		_	1 11444	1		utrition
1	m. h. 1		alnutriti			Total			cent infected
Classification	Total		d Percen			wounds			de Adjusted*
of operation	wounds	wounds		Adjusted	1^	15,417			
All classifications	67	15	22.4	13.7		6,615			
Refined-clean	13	2	15.4			4,987			
Other clean	9	0 6	0.0			2,527			
Clean-contaminated	30	1 -	20.0			1,234			
Contaminated and dirty	15	7 0	46.7			54			
Unknown	0	0)4			
									ted by class-
	Pati	ent facto	rs not re	ported					adjusted to
Classification	Total	Infected							f wounds for:
of operation	wounds				Di	abetes	Steroid	Obesity	Malnutrition
All classification	129	12	9.3	1.1	ŀ				1
Refined-clean	28	1	3.6		1	3.3	3.4	3.4	3.4
Other clean	38	4	10.5			7.3	7.3	7.3	7.4
Clean-contaminated	32	0	0.0) [.0.9	11.0	11.0	10.9
Contaminated and dirty		5	38.5		2	1.8	21.7	21.8	21.6
Unknown	18	2	11.1	.	1				
ł	11 !	1		L	1			I	

^{*}Adjusted: Incidence of infection for each nutritional and metabolic factor adjusted to a uniform classification of operation distribution.

Table B-12 Incidence of Infection by Certain Metabolic and Nutritional Patient Factors and Duration of Operation, Combined Hospitals

		and Durat	ton or ope	ration, Co	mbined Hosp	ltais				
		Dia	betes			Withou	ut diabete	:8		
Duration of	Total	Infected		infected	Total	Infect		nt infected		
operation	wounds	wounds		Adjusted*		wound				
All wounds Under 30 min.	356 38	37	10.4 13.2	10.5	15,128	1,10				
30-59 min.	71	6	8.5		1,294 2,960	17:				
1-< 2 hrs.	150	16	10.7		5,485	34				
2-< 3 hrs.	51	5	9.8		2,732	24				
3-< 4 hrs.	17	4	23.5		1,256	124				
4-< 5 hrs.	14	0	0.0		630	70	11.1			
5-< 6 hrs.	6	0	0.0		328	5:	2 15.9)		
6+ hrs.	5	0	0.0		259	4				
Unknown	4	1	25.0		184	1:	2 6.5	,		
L	<u> </u>	<u> </u>	<u> </u>			<u> </u>				
			therapy				teroid the			
Duration of	Total	Infected		infected	Total wounds	Infect		nt infected		
operation	wounds	wounds	Crude 16.0	Adjusted* 10.2	15,365	1,120				
All wounds Under 30 min.	119	19	11.1	10.2	1,323	1,12				
30-59 min.	6	ò	0.0		3,025	178				
1-< 2 hrs.	42	4	9.5		5,593	354				
2-< 3 hrs.	28	5	17.9		2,755	24				
3-< 4 hrs.	11	ĺí	9.1		1,262	12				
4-< 5 hrs.	8	ō	0.0		636	70				
5-< 6 hrs.	4	1	25.0		330	5	1 15.5	;		
6+ hrs.	10	. 7	70.0		254	40	0 15.7	, [
Unknown	1	0	0.0		187	1:	3 7.0)		
	<u> </u>		I			<u> </u>				
		Severe o			Without severe obesity					
Duration of	Total	Infected		infected	Total	Infect		nt infected		
operation	wounds	wounds	Crude	Adjusted*		wound				
All wounds	166	30	18.1	16.5	15,318	1,11				
Under 30 min.	6	0	0.0		1,326	4				
30-59 min.	16	1	6.2		3,015	17				
1-< 2 hrs.	46 49	10	21.7		5,589 2,734	34 24				
2-< 3 hrs.	33	8 7	21.2		1,240	12				
3-< 4 hrs. 4-< 5 hrs.	5	2	40.0		639	6				
5-< 6 hrs.	7	اً وُ	0.0		327	5				
6+ hrs.	4	2	50.0		260	1 4				
Unknown	1 0	Ō	-		188	1	3 6.9)		
Li	<u> </u>		<u> </u>							
		Severe	malnutriti				ere malnu			
Duration of	Total	Infected		infected	Total	Infect		ent infected		
operation	wounds		Crude	Adjusted*						
All wounds	67	15	22.4	16.2	15,417	1,13				
Under 30 min	1	0	0.0		1,331		8 3.6 7 5.9			
30-59 min.	9	1	11.1		3,022	17 35				
1-< 2 hrs.	25	4 2	16.0		5,610 2,768					
2-< 3 hrs.	15 9	5	13.3 55.6		1,264	12				
3-< 4 hrs. 4-< 5 hrs.	2	1 6	0.0		642		0 10.			
5-< 6 hrs.	ĺ	l ŏ	0.0		333		2 15.			
6+ hrs.	5	3	60.0		259		4 17.			
Unknown	ō	Ŏ	-		188	1	3 6.	9		
								by duration		
		tient facto	rs not rep	orted				a uniform		
Duration of	Total	Infected			dis	tribution	of wound	Malnutrition		
operation	wounds		Percent in	rected	Diabetes	Steroid	Obesity	Mainutiful		
All wounds	129	12 0	9.3 0.0	ļ	3.5	3.7	3.6	3.6		
Under 30 min. 30-59 min.	8 24	3	12.5	l	5.9	5.9	5.9	5.9		
30-59 min. 1-< 2 hrs.	36	5	13.9	l l	6.3	6.3	6.4	6.3		
2-< 3 hrs.	23	2	8.7]	9.0	9.0	9.0	9.0		
3-< 4 hrs.	22	î	4.5	l	10.2	10.1	9.9	9.9		
4-< 5 hrs.	7	î	14.3	1	10.8	10.9	10.9	10.9		
5-< 6 hrs.	3	ō	0.0	I	15.5	15.6	15.7	15.5		
6+ hrs.	3	ŏ	0.0	Į.	17.7	16.1	17.7	17.2		
Unknown	3	0	0.0	į	1			1		
				1	1	1	ľ	1		

^{*}Adjusted: Incidence of infection for each metabolic and nutritional factors adjusted to a uniform duration of operation distribution.

Table B-13

Incidence of Infection by Certain Metabolic and Nutritional Patient Factors and Urgency, Combined Hospitals

		Diabe	etes			Withou	t diabete	s
			Percen	t infected			Perc	ent infected
Urgency of	Total	Infected		Urgency*	Total	Infected	1	Urgency*
operation	wounds	wounds	Crude	adjusted	wounds	wounds	Crude	adjusted
All wounds	356	37	10.4	9.9	15,128	1,108	7.3	7.4
Elective	284	29	10.2		12,816	840	6.6	
Urgent	39	8	20.5		794	90	11.3	
Emergency	22	О .	0.0		1,298	160	12.3	
Unknown	11	0	0.0		220	18	8.2	
		Steroid t	herapy		, V	lithout st	eroid the	rapy
				t infected				ent infected
Urgency of	Total	Infected		Urgency*	Total	Infected		Urgency*
operation	wounds	wounds	Crude	adjusted	wounds	wounds	Crude	adjusted
All wounds	119	19	16.0	14.0	15,365	1,126	7.3	7.3
Elective	85	11	12.9	•	13,015	858	6.6	
Urgent	15	2	13.3		818	96	11.7	
Emergency	16	4	25.0		1,304	156	12.0	
Unknown	3	2	66.7		228	16	7.0	
		Severe of	l coitu		1	lithout sev	vere obes	ity
		JEVELE OF	Porce	nt infected	i	Tenoue se	Perc	ent infected
Ilmanan of	Total	Infected	Terce	Urgency*	Total	Infected		Urgency*
Urgency of operation	wounds	wounds	Crude	adjusted	wounds	wounds	Crude	
All wounds	166	30	18.1	18.0	15,318	1,115	7.3	7.3
Elective	135	24	17.8	10.0	12,965	845	6.5	,,,,
	11	24	18.2		822	96	11.7	
Urgent	15	3	20.0		1,305	157	12.0	
Emergency Unknown	5	1	20.0		226	17	7.5	
		_						
	<u> </u>	<u> </u>	J					
	L	Severe mal	nutritio	n	Wit	hout seve	re malnut	rition
			nutritio Perce	nt infected			Perc	ent infected
Urgency of	Total	Severe mal	nutritio Perce	nt infected Urgency*	Total	Infected	Perc	ent infected Urgency*
Urgency of operation	wounds	Infected wounds	Perce Crude	nt infected Urgency* adjusted	Total wounds	Infected wounds	Perc Crude	ent infected Urgency* adjusted
	1	Infected wounds 15	Crude 22.4	nt infected Urgency*	Total wounds 15,417	Infected wounds 1,130	Crude	ent infected Urgency*
operation	wounds	Infected wounds 15 9	Crude 22.4 19.6	nt infected Urgency* adjusted	Total wounds 15,417 13,054	Infected wounds 1,130 860	Crude 7.3 6.6	ent infected Urgency* adjusted
operation All wounds	wounds 67	Infected wounds 15	Crude 22.4	nt infected Urgency* adjusted	Total wounds 15,417 13,054 828	Infected wounds 1,130 860 97	Crude 7.3 6.6 11.7	ent infected Urgency* adjusted
operation All wounds Elective	wounds 67 46	Infected wounds 15 9 1	Crude 22.4 19.6	nt infected Urgency* adjusted	Total wounds 15,417 13,054 828 1,306	Infected wounds 1,130 860 97 155	Crude 7.3 6.6 11.7 11.9	ent infected Urgency* adjusted
operation All wounds Elective Urgent	wounds 67 46 5	Infected wounds 15 9	Crude 22.4 19.6 20.0	nt infected Urgency* adjusted	Total wounds 15,417 13,054 828	Infected wounds 1,130 860 97	Crude 7.3 6.6 11.7	ent infected Urgency* adjusted
operation All wounds Elective Urgent Emergency	wounds 67 46 5 14	Infected wounds 15 9 1	Crude 22.4 19.6 20.0 35.7	nt infected Urgency* adjusted	Total wounds 15,417 13,054 828 1,306 229	Infected wounds 1,130 860 97 155	Crude 7.3 6.6 11.7 11.9 7.9	ent infected Urgency* adjusted 7.3
operation All wounds Elective Urgent Emergency	wounds 67 46 5 14	Infected wounds 15 9 1	Crude 22.4 19.6 20.0 35.7	nt infected Urgency* adjusted	Total wounds 15,417 13,054 828 1,306 229	Infected wounds 1,130 860 97 155 18	7.3 6.6 11.7 11.9 7.9 ounds inf	ent infected Urgency* adjusted 7.3
operation All wounds Elective Urgent Emergency	wounds 67 46 5 14 2	Infected wounds 15 9 1	Perce Crude 22.4 19.6 20.0 35.7 0.0	nt infected Urgency* adjusted 21.0	Total wounds 15,417 13,054 828 1,306 229	Infected wounds 1,130 860 97 155 18 rcent of w	Crude 7.3 6.6 11.7 11.9 7.9 ounds infation, ad	ent infected Urgency* adjusted 7.3
operation All wounds Elective Urgent Emergency	wounds 67 46 5 14 2	Infected wounds 15 9 1 5	Perce Crude 22.4 19.6 20.0 35.7 0.0	nt infected Urgency* adjusted 21.0	Total wounds 15,417 13,054 828 1,306 229	Infected wounds 1,130 860 97 155 18 rcent of w	Crude 7.3 6.6 11.7 11.9 7.9 ounds infation, adution of	ent infected Urgency* adjusted 7.3 ected by justed to a wounds for:
operation All wounds Elective Urgent Emergency Unknown	wounds 67 46 5 14 2	Infected wounds 15 9 1 5 0	Perce Crude 22.4 19.6 20.0 35.7 0.0	nt infected Urgency* adjusted 21.0	Total wounds 15,417 13,054 828 1,306 229	Infected wounds 1,130 860 97 155 18 rcent of w	Crude 7.3 6.6 11.7 11.9 7.9 ounds infation, ad	ent infected Urgency* adjusted 7.3 ected by justed to a wounds for:
operation All wounds Elective Urgent Emergency Unknown Urgency of	wounds 67 46 5 14 2 Pat	Infected wounds 15 9 1 5 0	Perce Crude 22.4 19.6 20.0 35.7 0.0 not rep	nt infected Urgency* adjusted 21.0	Total wounds 15,417 13,054 828 1,306 229	Infected wounds 1,130 860 97 155 18 rcent of w	Crude 7.3 6.6 11.7 11.9 7.9 ounds infation, adution of	ent infected Urgency* adjusted 7.3 ected by justed to a wounds for:
operation All wounds Elective Urgent Emergency Unknown Urgency of operation	## wounds 67 46 5 14 2 Pat Total wounds	Infected wounds 15 9 1 5 0 ient factor: Infected wounds	Perce Crude 22.4 19.6 20.0 35.7 0.0 not rep Percent	nt infected Urgency* adjusted 21.0 corted infected	Total wounds 15,417 13,054 828 1,306 229	Infected wounds 1,130 860 97 155 18 rcent of w	Crude 7.3 6.6 11.7 11.9 7.9 ounds infation, adution of	ent infected Urgency* adjusted 7.3 ected by justed to a wounds for:
operation All wounds Elective Urgent Emergency Unknown Urgency of operation All wounds Elective	wounds 67 46 5 14 2 Pat Total wounds 129	Infected wounds 15 9 1 5 0 ient factor: Infected wounds 12	Perce Crude 22.4 19.6 20.0 35.7 0.0 not rep Percent	nt infected Urgency* adjusted 21.0 oorted infected 9.3	Total wounds 15,417 13,054 828 1,306 229 Perurgen unifor Diabetes	Infected wounds 1,130 860 97 155 18 rcent of w	Crude 7.3 6.6 11.7 11.9 7.9 ounds infation, adution of Obesity	ent infected Urgency* adjusted 7.3 ected by justed to a wounds for: Malnutrition
operation All wounds Elective Urgent Emergency Unknown Urgency of operation All wounds	wounds 67 46 5 14 2 Pat Total wounds 129 83	Infected wounds 15 9 1 5 0 ient factor: Infected wounds 12 8	Perce Crude 22.4 19.6 20.0 35.7 0.0 not rep Percent	nt infected Urgency* adjusted 21.0 corted : infected 9.3 9.6	Total wounds 15,417 13,054 828 1,306 229 Perurgene unifor Diabetes 6.7	Infected wounds 1,130 860 97 155 18 recent of we be a served of oper rm distrib Steroid 6.6	Crude 7.3 6.6 11.7 11.9 7.9 ounds infation, adution of Obesity 6.6	ent infected Urgency* adjusted 7.3 ected by justed to a wounds for: Malnutrition 6.7

^{*}Adjusted: Incidence of infection for each metabolic and nutritional factor adjusted to a uniform urgency of operation distribution.

Table B-14

Incidence of Infection by Certain Metabolic and Nutritional Patient Factors and Duration of Preoperative Hospitalization, Combined Hospitals

Duraties of			i aborca		. Without diabetes							
Duration of preoperative	Total	Infect	iabetes	t infecte		tal	Infe			tes ent infected		
hospitalization	wounds			Adjusted		unds	Mon	-	Crud			
All wounds	356	37	10.4	9.1		,128	1,10		7.3			
Outpatient	338	3/	10.4	7.1	"	402	1,100		3.0			
< 2 days	73	6	8.2		_	,660	394		5.9			
2-6 days	124	8	6.5			,654	342		7.3			
7-13 days	77	11	14.3			,841	163		8.9			
14-20 days	1 35	5	14.3		٠,	706	7		10.9			
21+ days	42	6	14.3		İ	716	10		14.9			
Unknown	1 72	1	20.0			149	1		8.7			
Unknown	11 -	<u> </u>	7 20.0		 _	149	<u> </u>					
Duration of			id therapy							herapy		
preoperative	Total	Infect		tinfecte		tal	Infe			ent infected		
hospitalization	wounds			Ad justed		unds	wour		Crud			
All wounds	119	19	16.0	13.2	15	,365	1,126		7.3	7.4		
Outpatient	0	0	-		ı	402	12		3.0			
< 2 days	20	2	10.0			,713	398		5.9			
2-6 days	22	3	13.6			,756	347		7.3			
7-13 days	37	6	16.2		1	,881	168		8.9			
14-20 days	17	5	29.4		ı	724	77		10.6			
21+ days	20	3	15.0			7 3 8	110)	14.9	1		
Unknown	3	0	0.0			151	14		9.3			
Duration of		Seve	re obesity		T	u	1 thou	Sevi	ere o	besity		
Preoperative	Total	Infect		infecte	d To	tal	Infe			ent infected		
	wounds			Ad justed		unds	wour		Crud			
hospitalization All wounds	166	30	18.1	18.3		,318	1,11		7.3	7.4		
Outpatient	11 100	1 %	10.1	10.5	1 2	402	12		3.0	/ • 		
< 2 days	62	12	19.4			,671	388		5.8			
2-6 days	56	10	17.9			,722	340		7.2			
	25	4	16.0			,722	170		9.0			
7-13 days	11	i	9.1		١.	730	81		11.1			
14-20 days	11 8	2	25.0			750 750	111	,	14.8			
21+ days	4	1			1	150	1		8.7			
Unknown	! 		25.0			130	1 1.					
Duration of			malnutritio							utrition		
preoperative	Total	Infect		infecte		tal	Infe			ent infected		
hospitalization	wounds			Ad justed		unds	wour		Crude			
All wounds	67	15	22.4	27.4	15	,417	1,130		7.3	7.5		
Outpatient	0	0	-		- [402	12	:	3.0			
< 2 days	13	5	38.5		6	,720	395	,	5.9			
2-6 days	15	3	20.0			,763	347	,	7.3			
7-13 days	13	2	15.4			,905	172	:	9.0			
14-20 days	12	4	33.3		T	729	78		10.7			
21+ days	10	ا ا	0.0		1	748	113		15.1			
Unknown	4	i	25.0		•	150	13		8.7			
<u> </u>				II no		of 120	unde i	nfac:	ad bu	duration of		
Duration of			not reporte	d Pi	reopera	tive	hospit	aliza	ition,	duration of adjusted to ounds for:		
preoperative	Total	Infected										
hospitalization	wounds		Percent infe	cted I	Diabete	8 St	eroid	Obes	ity M	alnutrition		
All wounds	129	12	9.3				-		- 1			
Outpatient	1	0	0.0	- 11	**	1	**	**	٠	**		
< 2 days	50	5	10.0		5.9		5.9	5.		6.0		
2-6 days	42	4	9.5	9.5		7.2 7.3		.3 7.		7.3		
7-13 days	14	2	14.3	8		8.9 8		8.9 8.9		9.		9.0
14-20 days	5	0	0.0	- 11	11.0	0 10.7 11		11.		10.7		
21+ days	15	1	6.7	- 11	14.8	1.	4.8	14.	.8	14.9		
Unknown	2		0.0	- 11		1			- 1			

^{*}Adjusted: Incidence of infection for each metabolic and nutritional factor adjusted to a uniform duration of preoperative hospital stay distribution.

0.0

^{**}Fewer than 10 patients with specific patient factor.

Table B-15

Incidence of Wound Infection by Remote Infection and Classification of Operation, Combined Hospitals

				Re	mote infec	tion				1
	None				One or more			Unknown		
Classification	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	percent
of operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	infected**
All wounds	14,732	993	6.7	799	147	18.4	82	17	20.7	
Clean	11,197	538	4.8	438	51	11.6	55	5	9.1	5.1
Clean-contaminated	2,345	238	10.1	230	36	15.7	14	6	42.9	10.4
Contaminated	621	88	14.2	57	22	38.6	3	1	33.3	15.5
Dirty	504	124	24.6	71	38	53.5	6	4	66.7	26.1
Unknown	65	5	7.7	3	0	0.0	4	1	25.0	
Adjusted rates			6.8	-	L	15.0		L		J

^{*}Incidence of infection by remote infection adjusted to a uniform classification of operation distribution.

Table B-16

Incidence of Wound Infection by Remote Infection and Duration of Operation, Combined Hospitals

	11			F	Remote info					11	
	l I	None			One or more			Unknown			
Duration of operation	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	percent infected**	
All wounds	14,732	993	6.7	799	147	18.4	82	17	20.7	1	
< 30 min.	1,300	42	3.2	25	5	20.0	15	1	6.7	4.1	
30-59 min.	2,957	158	5.3	85	21	24.7	13	2	15.4	6.3	
1-< 2 hrs.	5,382	312	5.8	273	47	17.2	16	4	25.0	6.4	
2-< 3 hrs.	2,606	217	8.3	186	36	19.4	14	0	0.0	8.9	
3-< 4 hrs.	1,184	108	9.1	106	19	17.9	5	2	40.0	9.6	
4-< 5 hrs.	587	58	9.9	54	8	14.8	10	5	50.0	10.2	
5-< 6 hrs.	306	46	15.0	28	4	14.3	3	2	66.7	15.0	
6+ hrs.	237	41	17.3	27	5	18.5	3	1	33.3	17.4	
Unknown	173	11	6.4	15	2	13.3	3	0	0.0		
Adjusted rate*	11		6.8			19.2	T			ш	

^{*}Incidence of infection by remote infections adjusted to a uniform duration of operation distribution.

Table B-17

Incidence of Wound Infection by Remote Infection and Age of Patient, Combined Hospitals

					Remote infe	ection				Ad justed	
		None		0	One or more			Unknown			
Age of patient	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds		percent infected	
111 ages	14,732	993	6.7	799	147	18.4	82	17	20.7		
Under 1 year	263	13	4.9	7	1	14.3	1	0	0.0	5.4	
1-14 years	1,035	46	4.4	24	5	20.8	3	0	0.0	5.2	
15-24 years	1,185	51	4.3	53	8	15.1	7	0	0.0	4.9	
25-34 years	1,691	88	5.2	66	9	13.6	10	1	10.0	5.6	
35-44 years	2,509	136	5.4	97	18	18.6	13	1	7.7	6.1	
45-54 years	2,861	198	6.9	164	28	17.1	14	3	21.4	7.4	
55-64 years	2,585	224	8.7	176	34	19.3	13	3	23.1	9.2	
65-74 years	1,852	178	9.6	152	33	21.7	10	5	50.0	10.2	
75+ years	705	56	7.9	55	11	20.0	9	4	44.4	8.5	
Unknown	46	3	6.5	5	0	0.0	2	0	0.0		
Adjusted ratek	 		6.8	├	L	18.1		L	Ь	U	

^{*}Incidence of infection by remote infection adjusted to a uniform age of patient distribution.

^{**} Incidence of infection by classification of operation adjusted to a uniform remote infection distribution.

^{**}Incidence of infection by duration of operation adjusted to a uniform remote infections distribution.

^{**}Incidence of infection by age of patient adjusted to a uniform remote infection distribution.

Table B-18

Incidence of Wound Infection by Remote Infection and Urgency of Operation, Combined Hospitals

	1				Remote in	fection				
	11	None			One or mo	Te		Unknown		Adjusted
Orgency of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	percent
operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	infected**
All wounds	14,732	993	6.7	799	147	18.4	82	17	20.7	
Elective	12,511	775	6.2	601	89	14.8	71	13	18.3	6.6
Urgent	758	76	10.0	84	21	25.0	4	2	50.0	10.8
Emergency	1,227	127	10.4	101	32	31.7	6	2	33.3	11.5
Unknown	236	15	6.4	13	5	38.5	1.	0	0.0	
Adjusted rate*			6.8			16.8				•

^{*}Incidence of infection by remote infection adjusted to a uniform urgency of operation distribution.

Table B-19

Incidence of Wound Infection by Remote Infection and Nutritional and Metabolic Patient Factors, Combined Hospitals

	1			Remo	te infecti	on				
		None			One or mor	e		Unknown		Ad justed
Nutritional and metabolic	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	percent
patient factors	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds		infected*
All wounds	14,732	993	6.7	799	147	18.4	82	17	20.7	
With diabetes	323	30	9.3	33	7	21.2	0	0	-	9.9
Without diabetes	14,295	955	6.7	754	137	18.2	79	16	20.3	7.3
With steroid therapy	102	15	14.7	16	4	25.0	1	0	0.0	15.2
Without steroid therapy	14,516	970	6.7	771	140	18.2	78	16	20.5	7.3
With severe obesity	146	24	16.4	20	6	30.0	0	0	-	17.1
Without severe obesity	14,472	961	6.7	767	138	18.0	79	16	20.3	7.3
With severe malnutrition	57	10	17.5	10	5	50.0	0	0	- 1	19.2
Without severe malnutrition	14,561	975	6.7	777	139	17.9	79	16	20.3	7.3
Not reported	114	8	7.0	12	3	25.0	3	1	33.3	
Rate adjusted for:										Ħ
Diabetes Steroid therapy Severe obesity			6.8 6.8 6.8			18.3 18.3 18.1				
Severe malnutrition			6.7			18.0				

Tincidence of infection by nutritional and metabolic factors adjusted to a uniform remote infection distribution.

Table B-20

Incidence of Wound Infection by Remote Infection and Duration of Preoperative Hospitalization, Combined Hospitals

				Re	mote infe	tion				1
Duration of		None			One or mo	re	L`	Unknown		Adjusted
preoperative hospitalization	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	percent infected**
All wounds	14,732	993	6.7	799	147	18.4	82	17	20.7	
Outpatient	387	12	3.1	1	0	0.0	15	0	0.0	2.9
Under 2 days	6,511	354	5.4	243	44	18.1	29	7	24.1	6.1
2-6 days	4,534	310	6.8	265	38	14.3	21	6	28.6	7.2
7-13 days	1,783	153	8.6	144	23	16.0	5	0	0.0	9.0
14-20 days	670	57	8.5	73	25	34.2	3	0	0.0	9.8
21+ days	703	95	13.5	63	15	23.8	7	4	57.1	14.0
Unknown	144	12	8.3	10	2	20.0	2	0	0.0	
Adjusted rate*	1	<u> </u>	6.7			17.2		<u> </u>	· · · · · · · · · · · · · · · · · · ·	n

^{*}Incidence of infection by remote infection adjusted to a uniform duration of preoperative hospitalization distribution.

^{**}Incidence of infection by urgency of operation adjusted to a uniform remote infection distribution.

^{**}Incidence of infection by duration of preoperative hospitalization adjusted to a uniform remote infection distribution.

Table B-21

Incidence of Infection by Wound Closure and Classification of Operation, Combined Hospitals

							Classific	ation of	Classification of operation							
	Re	Refined-clean	an	Ot	Other clean		Clean	Clean-contaminated	nated	Contam	Contaminated and dirty	d dirty	No	Not reported	q	Adjusted
	Total	Infected	Total Infected Percent Total Infected Percent	Total	Infected	Percent	Total	Total Infected Percent	Percent	Total	Total Infected Percent	Percent	Total	Total Infected Percent	Percent	percent
Wound closure	Mounds	wounds	wounds wounds infected wounds wounds infected	wounds	wounds	infected	wounds	wounds	wounds wounds infected wounds wounds infected wounds wounds infected	wounds	wounds	infected	wounds	wounds	infected	infected**
										:						
All wounds	6,656	222	3.3	5,034	372	7.4	2,589	280	10.8	1,262	277	21.9	72	9	8.3	
None or incomplete	•	٥	1	199	80	4.0	91	15	16.5	111	38	34.2	-	0	0.0	11.9
Primary	6,656	222	3,3	4,608	337	7.3	2,441	256	10.5	1,066	211	19.8	65	9	9.2	10.0
Secondary	0	ن	•	11	2	18.2	6	e	33.3	19	9	31.6	0	ပ		24.5
Skin graft	0	٠,	1	143	18	12.6	31	9	19.4	47	14	29.8	0	``		17.0
Other closure	0	_	•	21	9	28.6	4	0	0.0	11	9	54.5	0	٠	,	23.9
Not reported	0	۰,		52	-	1.9	13	0	0.0	80	7	25.0	9	0	0.0	
Adjusted rate*			***			7.4			10.8			20.4				

^{*}Adjusted rate: Incidence of infection by classification of operation adjusted to a uniform wound closure distribution.

***Refined-clean wounds all primarily closed.

Table B-22

Incidence of Infection by Wound Closure and Urgency of Operation, Combined Hospitals

Elective Total Infected Percent Wound closure wounds infecte	Flactive		Annual Section Section 1997			CABCALCY OF OPERATION					_	
Total wounds				Urgent			Emergency		Urgency	Urgency not reported	rted	Adjusted
wounds	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected Percent	Percent	percent
	wounds infected	infected	wounds	wounds	infected	wounds	wounds infected	infected	wounds	wounds	infected	infected**
All wounds 13,183	877	6.7	846	66	11.7	1,334	161	12.1	250	20	0.8	
None or incomplete 314	39	12.4	38	9	15.8	77	15	34.1	9	-	16.7	14.5
Primary 12,556	784	6.2	780	87	11.2	1,265	142	11.2	235	19	8.1	6.9
Secondary 31	6	29.0	2	0	0.0	S	7	0.04	-	0	0.0	28.4
Skin graft 191	33	17.3	18	2	27.8	10	0	0.0	2	0	0.0	16.4
Other closure 33	10	30.3	-	-	100.0	2	-	50.0	0	S	,	35.8
Not reported 58	2	* *	7	0	0.0	80		12.5	9	0	0.0	
Adjusted rate*		9.9			11.7			11.8				_

^{*}Adjusted rate: Incidence of infection by urgency of operation adjusted to a uniform wound closure distribution.

^{**}Incidence of infection by wound closure adjusted to a uniform classification of operation distribution.

^{**}Incidence of infection by wound closure adjusted to a uniform urgency of operation distribution.

Table B-23

Incidence of Infection by Drain Site Provided and Classification of Operation, Combined Rospitals

								One o	One or more drain sites provided	in sites	provideo				
	_						Subc	Subcutaneous wound	punon	Sero	Serous cavity wound	punon a	_	Remote	
	No di	No drain site provided	provided				with	with or without other	t other	with	with or without other	it other	with	with or without other	other
Classification of	Total	Total Infected Percent	Percent	Total	Total Infected Percent	Percent	Total	Total Infected Percent	Percent	Total	Total Infected	Percent	Total	Infected Percent	Percent
operation	wounds	wounds wounds	infected	wounds	wounds	infected	wounds	wounds	infected wounds	wounds	wounds	infected	wounds	wounds	infecte
All wounds	9.447	474	5.0	6,105	678	11.1	3,014	346	5'11	1,422	171	12.0	2,042	230	11.3
Refined-clean	6,656	222	3.3	•	9		0	ပ	•	•	c		•	0	•
Other clean	626	55	5.6	4,023	315	7.8	2,227	176	7.9	763	26	7.3	1,216	109	9.0
Clean-contaminated	1,161	76	8.1	1,413	186	13.2	471	82	17.4	977	28	13.0	619	69	11.2
Contaminated and dirty	628	103	16.4	631	172	27.3	380	98	28.7	201	26	27.9	192	ŝ	26.0
Not reported	23	•	0.0	88	5	13.2	91	7	12.5	12	-	8.3	21	7	13.3
Adjusted rate*			7.9			12.1			13.6			11.9			12.1
	Drain	Drain site not reported	reported	Adjusted	P										
Classification of	Total	Total Infected Percent	Percent	percent											
operation	wounds	wounds	infected	Infected##	**										
All wounds	19	5	8.2												
Refined-clean	۰	0	•	‡											
Other clean	32	7	6.2	9.9											
Clean-contaminated	15	0	0:	10.7	_										
Conteminated and dirty	6	2	66.7	21.0	٦										
Not reported	=	-	9.1												

*Adjusted: Incidence of infection by drain site provided adjusted to a uniform classification of operation distribution.

**Incidence of infection by classification of operation adjusted to a uniform drain site provided distribution.

Table B-24 Indection by Drain Site Provided and Daration of Operation, Combined Hospitals

Parenton of Total Infected Percent Parent	No drain site provided No drain site provided Notal Differed Notal	niected sounds 678 199 199 200 200 200 200 200 200 200 2	<u> </u>	tenecus w re without Infected 346 12 12 53 101 83 42 22 12 12 13 4	ound ocher Percent infected 11.5 15.1 10.2 10.2 14.5 13.2 13.2 16.0	86F000 10 41th Total 1,422 20 1,422 1,423 1,	e cavity vor utility in the cavity vor utility in the cavity vounde wounde 171 4 17 55 55 55 55 55 66 6 6 6 6 6 6 6 6 6 6	round other	wounds 2, 042 2, 042 2, 042 123 123 123 127 177 177 18	Remote In Fetch In Fetch 230 230 250 39 250 26 26 26 26 26 26 26 26 26 26 26 26 26
The state of the	No drain site arrows Notation	nfected 678 81 19	P S C	x vithout Infected vounds 346 12 55 101 62 22 12 12 12 12 12 12 12 12 12 15 15 16 15 15 15 15 15 15 15 15 15 15 15 15 15	11.5	with Total wounds 1,422 136 136 541 325 188 83 73 73	or without Infected wounds wounds 171 4 4 171 55 55 459 21 10 10 9 9 6 6 6	12.0 12.0 12.0 12.5 10.2 10.2 10.1 11.2 11.3 11.3	with Total wounds 2, 04,2 23 123 641 664 327 177 177 177 157	230 25 25 25 26 26 26 26 26 26 26 26 26 26 26 26 26
The company of the	Total Infected Percent Potal	678 648 658 658 658 658 658 658 658 658 658 65	Total wounds 3,014 3,014 9548 9572 9772 977 177 177 76 25 25 25 25 25 25 25 25 25 25 25 25 25	Infected wounds 126 12 126 12 12 12 12 12 12 12 12 12 12 12 12 15 15 15 15 15 15 15 15 15 15 15 15 15	Percent infected infected infected 5.1 5.1 1.5 5.1 10.0 10.2 14.5 13.2 12.7 16.0 16.0 16.0	Total wounds 1,422 2,422 3,541 3,55 4,136 8,3 7,3 7,3 7,3 7,3 7,3 7,3 7,3 7,3 7,3 7	Infected wounds 171 4 171 4 17 55 55 69 21 10 9 9 9 9 9 9 9 9 9	Percent 10.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0	Total wounds 2,042	Infected vounds 230 230 25 25 25 25 26 26 16 16 16 16 16 16 16 16 16 16 16 16 16
1061 20 20 20 20 20 20 20 2	Weighted Weighted	673 8 6 7 8 8 1 9 8 8 8 1 9 8 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9 8 8 1 9	+	246 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	11.5 11.5 11.5 10.0 10.0 14.5 13.2 13.2 13.2 16.0	wounds 1,422 20 136 325 138 188 188 83 73 73 24 2	Wounds 171 171 171 171 17 17 17 17 10 10 0	12.0 12.0 12.0 12.0 12.1 12.1 12.0 12.0	2,042 2,042 23 123 123 123 177 177 177 18 58 15	230 230 230 25 25 26 26 26 26 26 27 27 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20
1,001 23 24 24 25 25 25 25 25 25	9,447 474 5.0 6,105 1,254 9 4,4 706 1,156 12 20 4,4 706 1,157 16 2 4,5 706 1,157 16 2 4,5 706 1,157 16 2 4,5 706 1,157 16 2 4,5 706 1,157 10 1,17 706 1,157 10 1,17 706 1,157 10 1,17 706 1,157 10 1,17 706 1,157 10 1,17 706 1,157 10 1,17 706 1,157 10 1,17 706 1,157 10 1,17 706 1,157 10 1,17 706 1,17 7	50 50 50 50 50 50 50 50 50 50 50 50 50 5	3,044 2,286 2,286 3,572 3,177 2,47 2,28 2,28 2,28 2,28 2,28 2,28 2,28 2,2	322522224 322222224	11.5 16.2 16.2 16.2 18.2 18.2 18.2 18.2	1,422 20 136 136 188 188 188 188 23 24 24	11 14 12 13 13 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16	20.0 20.0 11.1 11.2 12.3 0.0	2, 04,2 23 12,3 12,3 12,1 604 32,7 17,7 17,7 18 18	2 30 2 52 3 52 2 66 2 66 2 70 2 70 2 70 2 70 2 70 2 70 2 70 2 70
1,001 228 246 720 119 6.9 234 12 20 4 200 23 23 23 23 23 24 23 23	1,061 28 2.6 276 278 2.6	22888444	236 252 272 274 274 274 274 274 274 274 274 27	28584224	5.1 10.0 10.0 10.0 10.0 10.0 10.0 10.0 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	223 56 57 72 88 88 81	7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
3,724 99	1,2134 162 4.4 2.090 1,578 162 4.5 2.090 1,58 162 4.5 2.090 1,58 152 152 154 1,58 152 154 1,58 154 155 154 1,58 154 154 1,	2832244	######################################	222224	10.0 10.2 11.2 12.7 16.2 16.2 16.2	¥	0 6 9 12 5 3 17	2.00 1.12 1.23 1.13 1.13 1.13 1.13 1.13 1.13	123 641 664 327 177 18 88 15	2 6 6 8 3 3 2 3 5 2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1,578 182	1,578 16. 2. 4.5 2.069 1,606 19. 6.7 2.069 121 19. 7.6 2.07 121 19. 7.6 2.07 122 19. 16. 17. 17. 17. 17. 17. 17. 17. 17. 17. 17	8888444	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	101	10.2 14.5 113.2 112.7 116.2 11.2	25 8 8 8 5 4 7 7 7 8 8 8 8 7 4 7 7 8 8 8 8 7 4 7 7 8 8 8 8	88 20 000	12.2.0 12.2.0 12.2.0 10.0 10.0 10.0	641 604 327 177 74 28 15	25 8 8 2 3
1,406 93 6.6 1,39 16.0 11.5 312 6.9 11.1	1,606 1,509 1,600 1,109 1,600 1,109 1,100 1,10	32244.	22248	822224	16.5 13.2 16.2 16.0 11.2	2 2 2 3 8 8 8 2 2 4 2	\$25000	1.2.2.2.1.2.0.0.1.1.0.0.1.1.1.0.0.1.1.1.1	604 327 177 74 28 58 15	2 6 2 3 2 2 2 3 2 2 3 2 3 2 3 3 2 3 3 2 3
11 15 17 17 17 17 17 17	235 35 7.6 375 25 25 25 25 25 25 25 25 25 25 25 25 25	22440	5528	22224	13.2 12.7 16.2 19.7 16.0	2 2 2 3 3 3 3	226.00	11.2 12.3 12.3 0.0 1.11	327 771 78 88 115	2 2 2 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3
131 15 15 15 205 34 16.6 17.7 12.8 12.7 13.7 12.8 13.7 12.8 13.7 13.8 14.	131 16 13.7 205 131 16 13.7 205 146 7 4.7 4.0 146 7 4.7 4.0 146 7 13.4 146 146 146 146 146 146 146 146 146 146 146 146 146 146 146 156 146 146 156 156 146 156 156 146 156 156 146 156 156 146 156 156 146 156 156 146 156 156 146 156 156 156 156	588°	2482	2224	12.7 16.2 19.7 16.0	82%	2000	0.0	7.7 % % S 1	2552
13 18 13,7 20,8 34 16,6 76 15,0 54 6 11,1 76 76 76 76 76 76 76 7	131 152 153 154 40 40 40 40 40 40 40	**	4	2234	16.2 19.7 16.0	242	••0	11.1	% 8 8 21	2 2 2
148	146 175 140	**	22	24	11.2	*~	• 0	0.0	82	2 2
144 7	144 7 4.7 1.7 1.1 1.	•	χ.	•	16.0	~	•	0.0	13	~
Side Side	20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				11.2			,		
Parts Part	Pain 110 Pain 110							0.77		
Total Infected Personne Total Infected Personne Total Infected Personne	Total Infected Percent Perce									
i. 13 13 13 13 13 13 13 13 13 13 13 13 13	in. 3 1 33.3 2.2 2.5 1 9.4 5.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5									
00000000000000000000000000000000000000	11 1 9.4 11 1 9.4 24 1 9.4	Г								
24 1 1 2000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7.76									
2000 00 00 00 00 00 00 00 00 00 00 00 00	24	-								
11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0										
20.0 33.3 30.0 0.0 0.0										
33.3	20.0									
0,00	3 1 33.3									
, 00	0.0	_								
0	- 0 - 0 -	_								
	•	}								

11.6

Tracismon of infection by drain site provided adjusted to a uniform duration of operation distribution. Atherismon of infection by duration of operation adjusted to a uniform drain site provided distribution.

Incidence of Infection by Drain Site Provided and Urgency of Operation, Combined Hospitals

Table B-25

								One or	One or more drain sites provided	n sites	provided				
							Subc	Subcutaneous wound	punor	Sero	Serous cavity wound	Mound		Remote	
	No	No drain site provided	provided				with	with or without other	t other	with	with or without other	t other	e t	with or without other	10440
Urgency of	Total	Total Infected Percent	Percent	Total	Total Infected	Percent	Total	Total Infected Percent	Percent	Total	Total Infected Percent	Parcent	Total	Tafasta	Other
operation	wounds	wounds wounds	infected	wounds	wounds	infected	Wounds	wounds	infected	200003	- Populari	infootod	10.01	Toral Tillected Fercent	rercent
All wounds	6.447	7/7	5.0	6.105	678		3 01%	37.6	11 6	1		ייייייייייייייייייייייייייייייייייייייי	Spunge	3	infected
010046						111	170	÷		774,1	1/1	12.0	2,042	230	11.3
ביפנרויה	606'	3/1	0.4	2,140	203		2,545	261	10.3	1,159	116	10.0	1.728	172	9
Urgent	433	37	5.5	411	62	15.1	175	53	16.6	133	22	16.5	160	20	12.5
Emergency	828	28	8.9	472	101	21.4	257	67	19.1	116	31	26.7	128	2 %	7 76
Not reported	167	∞	4.8	9/	12	15.8	37	7	18.9	14		14.3	26	ţ <	20.07
						1423					1	:	3	,	10.4
Adjusted rate*			5.0			11.1			11.4			11.8			11.6
	Dra	Drain site not reported	reported	Adjusted	şg Şg			,	4		7			1	
Urgency of	Total	Total Infected Percent	Percent	percent	ıt										
operation	wounds	wounds wounds	infected	infected**	*										
All wounds	19	5	8.2		<u> </u>										
Elective	87	m	6.2	6.9											
Urgent	2	0	0.0	11.3											
Emergency	7	7	50.0	13.4											
Not reported	7	0	0.0		7										
	-														

*Incidence of infection by drain site provided adjusted to a uniform urgency of operation distribution. **Incidence of infection by urgency of operation adjusted to a uniform drain site provided distribution.

Incidence of Infection by Duration of Operation and Classification of Operation, Combined Hospitals

Table B-26

Classification Total Infected Percent To								ā	ration of	Duration of operation	-					
Total Infected Percent Total Infected Perc	Classification	D	nder 30 m	mites	30	-59 minut	68	1 and	under 2	hours	1	d under	hours	1	A mades	
Note	Jo .	Total	Infected	Percent		Infected	Percent		Infected	Percent	Total	Infected	Percent	Pose	Tafected	Hours
1,360 48 3.6 3.6 3.05 181 5.9 5.671 363 6.4 2.806 233 9.0 1.735 1,340 68 2 2.9 3.14 3.27 2.31 72 2.9 9.45 44 7.7 291 12 4.1 9.62 44 5.2 2.31 128 6.7 1.051 8.0 7.6 402 403 12 20.4 252 6.8 2 10.1 2.3 19.8 2.7 13.6 403 404 2.2 2.9 3.14 2.3 2.0 404 4 4 4 4 2.3 2.0 405 405 4.0 3.1 405 405 4.1 3.1 405 405 4.1 3.1 406 407 4 4 4 4 4 407 4 4 4 4 4 408 4 4 4 4 408 4 4 4 409 4 4 4 409 4 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 4 409 4 400	operation	Mounds		infected	wounds		infected		wounds	infected		Monade	Infactor	1	10000	in contract
10	All wounds	1,340		3.6	3.055	181	0.5	5 671	т-	7 4		26.2	200	anduna.	apunda.	nrected
10	Refined-clean	900	_						3 3		30.4	55	· •	1,295	2	0.0
and dirty 621 12 4.1 344 5.2 1,915 128 6.7 1,051 80 7.6 463 48 1 and dirty 93 19 2.2 3.9 4.2 4.5 11.1 2.3 1 4.3 11 50 27.0 405 38 1 4.5 3.0 </th <th>041</th> <th>3 3</th> <th></th> <th>::</th> <th>77017</th> <th>\$</th> <th>7.7</th> <th>2,511</th> <th>7.7</th> <th>5.9</th> <th>945</th> <th>4</th> <th>4.7</th> <th>311</th> <th>16</th> <th>6.1</th>	041	3 3		::	77017	\$	7.7	2,511	7.7	5.9	945	4	4.7	311	16	6.1
Automotive Aut	Ocher clean	291	_		846	3	2.5	1,915	128	6.7	1.051	8	7.6	463	83	7 01
## different control of the control	Clean-contaminated	89	_	2.9	314	25	8.0	753	69	9.2	582	2	13.6	207	? ?	
Control Cont	Contaminated and dirty	93		20.4	252	99	26.2	697	93	19.8	217	200	23.0	200	3 8	, ,
Control Cont	Not reported	- 7	•	0:0	18	2	11.1	23	-	4.3	=	•	0.0	2	. 0	0.0
Column C	Adjusted rate*			4.2			6.3			9.9			8.6			9.3
Total Infected Percent Total																
Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Infe							Dura	tion of	operation						1	
Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Total Infected Percent Infected Vounds Vounds Infected Vounds Infected Vounds Infected Vounds Infected Vounds Infected	Classification	8 7	nd under 5	hours	5 an	d under 6	hours	6 hor	urs and o	ver	Ź	of report	8	Adtuse	_	
on wounds wounds infected wounds wounds wounds wounds wounds wounds infected wounds in	Jo et	Total	Infected	Percent	Total	Infected	Percent		Infected	Π		Infacted	Dercont			
n 188 8 8 8 8 8 75 10 13.9 55 15.4 267 47 17.6 191 11 11 11 11 11 11 11 11 11 11 11 11	operation	wounds	wounds	infected	Wounds	wounds	infected		Manna	7		Towns do	inferent.	To the second	<u>.</u>	
n 138 8 5.8 75 10 13.3 55 8 14.5 11.3 2.1 11.3 2.1 11.3 2.1 11.3 2.1 11.3 2.1 11.3 2.1 11.3 2.1 11.3 2.1 11.3 2.1 </th <th>All wounds</th> <th>651</th> <th>71</th> <th>10.9</th> <th>337</th> <th>52</th> <th>15.4</th> <th>267</th> <th></th> <th>17.6</th> <th>101</th> <th>1</th> <th>4 8 8</th> <th>THIECE</th> <th></th> <th></th>	All wounds	651	71	10.9	337	52	15.4	267		17.6	101	1	4 8 8	THIECE		
instead 207 27 13.0 115 21 18.3 91 9 9.9 52 3 5.8 and dirty 59 14 23.7 1 10 115 21 18.3 91 94 26 27.7 15 5 33.3 2 and dirty 5 2 40.0 1 0 0.0 3 1 33.3 2 0 0.0 10.0	Refined-clean	138	80	5.8	75	10	13.3	55		5 71	-	; •		,		
Aud dirty 59 14 23.7 30 5 16.7 24 3 12.5 9 3 33.3 2 0 0.0 15.0 15.0 15.0 15.0 15.0 15.0 15.	Other clean	207	27	13.0	115	21	18.3	16	•	0	2	. ~				
and direy 59 14 23.7 30 5 16.7 24 3 12.5 9 3 33.3 5 10.0 15.0 15.0	Clean-conteminated	242	20	8.3	116	16	13.8	76	26	77.7	2 2	· ·		7.0	_	
5 2 40.0 1 0 0.0 3 1 33.3 2 0 0.0 0.0 15.0 15.0 15.0	Contaminated and dirty	29	14	23.7	8	٠,	16.7	54	· m	12.5		۰ ۳		2.0		
10.0 15.3 15.0	Not reported	5	2	40.0	-	0	0.0	٣	-	33.3	. ~		0	ì		
10.0									_	:	'	,	;		1	
	Adjusted rate*			10.0			15.3			15.0				_		

*Incidence of infection by duration of operation adjusted to a uniform classification of operation distribution.

**Incidence of infection by classification of operation adjusted to a uniform duration of operation distribution.

Table B-27

Incidence of Infection by Wound Closure and Duration of Operation, Combined Hospitals

	IL					Wound	closure					
Duration	N	one or par	tiel	l	Primary			Secondar	y		Skin graf	t
of operation	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected
All wounds	402	61	15.2	14,836	1,032	7.0	39	11	28.2	221 21	38	17.2
Under 30 min. 30-59 min. 1-< 2 hrs.	52 88 134	10 22 8	19.2 25.0 6.0	1,250 2,875 5,421	32 147 339	2.6 5.1 6.3	17	4	33.3 23.5 33.3	55 68	6	9.5 10.9 8.8
2-< 3 hrs. 3-< 4 hrs.	63 29	7	11.1 27.6	2,691 1,235	241 112	9.0	1	0	0.0	28 13	5	17.9
4-< 5 hrs. 5-< 6 hrs.	17	2	11.8 11.1	612 319	65 45	10.6	3	1	33.3	16	3	18.8 75.0
6+ hrs.	8	3	37.5	256	42	16.4	Ŏ			3	2	66.7
	2	3 0					0	0	24,0	3 9	4	6

			Wound clos	ure			J
Duration		Other			Not repor	ted	Adjusted
of operation	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	percent infected**
111 wounds	36	12	33.3	79	3	3.8	
Under 30 min.	9	2	22.2	2	0	0.0	3.3
30-59 min.	4	2	50.0	16	0	0.0	5,8
1-< 2 hrs.	16	6	37.5	26	2	7.7	6.5
2-< 3 hrs.	5	0	0.0	18	0	0.0	9.1
3-< 4 hrs.	2	2	100.0	10	1	10.0	10.2
4-< 5 hrs.	ll o	0	-	3	0	0.0	10.8
5-< 6 hrs.	ll 0		-	1	0	0.0	14.8
6+ hrs.	ا ا	l e	-	1 0	0	! -	17.6
Not reported	ا ا		۱ -	3	1 0	0.0	

*Incidence of infection by wound closure adjusted to a uniform duration of operation distribution.

**Incidence of infection by duration of operation adjusted to a uniform wound closure distribution.

Table B-28

Incidence of Infection by Duration of Operation and Urgency of Operation, Combined Hospitals

					Durat	ion of ope						
Urgency	Under	30 minute	8	1	30-59 min	utes	1 and	under 2 h	ours	2 and	under 3 ho	urs
of operation	Total wounds	Infected wounds	Percent	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percen infecte
All wounds Elective Urgent Emergency Not reported	1,340 1,248 33 49 10	48 40 2 5	3.6 3.2 6.1 10.2 10.0	3,055 2,543 166 314 32	181 134 19 26 2	5.9 5.3 11.4 8.3 6.2	5,671 4,697 307 571 96	363 244 36 76 7	6.4 5.2 11.7 13.3 7.3	2,806 2,372 172 222 40	253 202 21 26 4	9.0 8.5 12.2 11.7 10.0
Adjusted rate*	+		4.0			5.9			6.3			9.0

					Durat	ion of ope	ration					
Urgency	3 an	d under 4	hours	4 and	d under 5	hours	5 aı	nd under 6	hours	6 h	ours and o	ver
of	Total wounds	Infected wounds	Percent infected	Fotal wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected
All wounds Elective Urgent Emergency Not reported	1,295 1,095 86 89 25	129 105 7 15	10.0 9.6 8.1 16.9 8.0	651 546 40 51 14	71 57 5 7 2	10.9 10.4 12.5 13.7 14.3	337 288 24 19 6	52 43 6 3 0	15.4 14.9 25.0 15.8 0.0	267 232 11 13 11	47 43 0 2 2	17.6 18.5 0.0 15.4 18.2
Adjusted rate*	 	<u> </u>	10.2	+	L	10.8			15.5			17.2

17	Durat	ion of ope Not repor		Ad justed
Urgency of operation	Total wounds	Infected wounds	Percent infected	percent infected**
All wounds Elective Urgent Emergency Not reported	191 163 7 6	13 9 3 1	6.8 5.5 42.9 16.7 0.0	6.7 11.1 12.2

*Incidence of infection by duration of operation adjusted to a uniform urgency of operation distribution.

** Incidence of infection by urgency of operation adjusted to a uniform duration of operation distribution.

Incidence of Infection by Duration of Operation and Duration of Preoperative Hospitalization, Combined Hospitals

							Durat	Duration of operation	eration						
Duration of	Chr	Under 30 minutes	tes	ŝ	30-59 minute		l and	1 and under 2 hours	hours	2 an	and under 3 hours	hours	3 and	and under &	4 hours
preoperative	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total		1000
spitalization	wounds	Wounds	infected	Wounds	wounds	Infected	Mounds	wounds	infected	wounds	Wounds	Infected		apu.ora	fafeeted
1 wounds	1,340	84	3.6	3,055	181	5.9	5,671	363	6.4	2.806	253	0.6	+-	1 29	10.01
Outpatient	222	'n	2.3	138	'n	3.6	32	-	3.1	2	-	20.05		6	0.01
< 2 days	693	13	1.9	1,701	93	5.5	2,727	143	5.2	982	24	7.7	330	, ;	. :
2-6 days	235	12	5.1	699	31	9.4	1,724	111	4.9	1.095	6	ď	35.5	Į v.	1.7.1
7-13 days	92	6	9.8	286	17	5.9	616	38	6.2	421	62	0.01	21.6	£ 6	1.01
14-20 days	3	m	8.9	112	17	15.2	248	22	10.1	145	19	11.0	77) «	70.0
21+ days	43	4	9.3	118	91	13.6	276	41	14.9	128	24	18.8	. 98	0 0	7.17
Not reported	11	8	18.2	31	7	6.5	87	4	8.3	33	-	3.0	81	2 7	1:1
															!
justed rate*			4.5			6.1			4.9			10.1			10.2
				Duration	ration of operation	ton									
Duration of	4 an	4 and under 5 hours	hours		5 and under 6 hours	tours		6+ hours			Not renorted	_	744111		
premerative	Total	Tafactadi	Deroont	Total.	Tafacal	2000	l.	ŀ		1	יייייייייייייייייייייייייייייייייייייי		Daning Fed	<u></u>	
ospitalization	wounds	Wounds		Wounds	wounds infected	infected	Mounds	vounds	frecent	Total	Infected	Percent	percent	<u>.</u>]	
1 wounds	159	11	6*01	337	52	15.4	267	47	17.6	191	13	6.8	THIBCLEG	<u>.</u>	
Outpatient	•	0	•	0	•	,	0	0	•	6	0	0	11 2		
< 2 days	157	20	12.7	2	11	15.7	*	4	11.8	. 08	4	2.0			
2-6 days	262	54	9.5	124	18	14.5	104	17	16.3	67					
7-13 days	119	14	11.8	79	12	15.2	77	18	23.4	2	. ~	12.0	, c		
14-20 days	55	4	7.3	32	e	9.4	27	'n	18.5	9	·	16.7	1 2		
21+ days	20	^	14.0	28	7	25.0	24	m	12.5	20	. 0	10.0	14.7		
Not reported	œ	7	25.0	4	-	25.0	-	•	0.0	2	0	0.0		ך	
justed rate*			11.0			15.0			14.7						
										_					

*Incidence of infection by duration of operation adjusted to a uniform duration of preoperative hospitalization distribution.

**Incidence of infection by duration of preoperative hospitalization adjusted to a uniform duration of operation distribution.

Table E-30

Incidence of Infection by Urgency of Operation and Classification of Operation, Combined Hospitals

				Urgen	cy of oper	ation			
Classification		Elective			Urgent			Emergency	
of operation	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected
All wounds Refined-clean	13,183	877	6.7	846	99	11.7	1,334	161	12.1
Other clean	6,656 3,941	222 288	7.3	434	40	9.2	487	39	8.0
Clean-contaminated Contaminated and	1,953	219	11.2	238	17	7.1	355	40	11.3
dirty Not reported	585 48	145 3	6.2	169 5	1	24.3 20.0	484 8	82	16.9 0.0
Adjusted rate*		L	10.9	<u> </u>	<u> </u>	10.7		<u> </u>	10.2

	Urgen	cy of oper	ation	
Classification	Urgen	cy not rep	orted	Adjusted
of	Total	Infected	Percent	percent
operation	wounds	wounds	infected	infected**
All wounds	250	20	8.0	1
Refined-clean	0	0	-	***
Other clean	172	5	2.9	7.6
Clean-contaminated	43	4	9.3	10.8
Contaminated and	11			l
dirty	24	9	37.5	23.5
Not reported	11	2	18.2	
	11	_		i i

^{*}Incidence of infection by urgency of operation adjusted to a uniform classification of operation distribution.

Table B-31
Incidence of Infection by Urgency of Operation and Age of Patient, Combined Hospitals

	11			Urgency of	operation				
		Elective			Urgent			Emergency	
Age of patient	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected
Age of pactent	1	WOOLLOD		***************************************	1	1			
All ages	13,183	877	6.7	846	99	11.7	1,334	161	12.1
Under 1 year	216	11	5.1	18	2	11.1	30	1	3.3
1-14 years	846	34	4.0	43	1	2.3	151	14	9.3
15-24 years	905	35	3.9	77	5	6.5	243	18	7.4
25-34 years	1,466	72	4.9	84	9	10.7	185	15	8.1
35-44 years	2,336	128	5.5	83	6	7.2	163	18	11.0
45-54 years	2,726	178	6.5	117	19	16.2	164	31	18.9
55-64 years	2,367	200	8.4	192	28	14.6	172	26	15.1
65-74 years	1.705	173	10.1	130	16	12.3	137	24	17.5
75+ years	568	43	7.6	102	13	12.7	84	14	16.7
Unknown	48	3	6.2	0	0	-	5	0	0.0
Adjusted rate*	 	L	6.6		<u> </u>	11.3		<u> </u>	13.5

Adjusced lace.	<u> </u>			
		cy of oper cy not rep		Adjusted
		Infected		percent
	wounds	wounds	infected	infected**
Age of patient	Modifica	wounds	Intecred	Intected
All ages	250	20	8.0	1
Under 1 year	1 7	0	0.0	5.3
1-14 years	22	2	9.1	4.4
15-24 years	20	1	5.0	4.3
25-34 years	32	2	6.2	5.5
35-44 years	37	3	8.1	6.1
45-54 years	32	1 1	3.1	8.1
55-64 years	43	7	16.3	9.3
65-74 years	42	3	7.1	10.9
75+ years	15	1	6.7	8.7
Unknown	0	0	-	

^{*}Incidence of infection by urgency of operation adjusted to a uniform age distribution.

^{**}Incidence of infection by classification of operation adjusted to a uniform urgency of operation distribution.

^{***}Refined-clean limited to elective wounds.

^{**}Incidence of infection by age of patient adjusted to a uniform urgency of operation distribution.

Table B-32 Incidence of Infection by Urgancy of Operation and Time Operation Began, Combined Hospitals

Time				Urgency of	Urgency of operation				
operation		Elective			Urgent			Emergency	
pegen	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
(military time)	spunos	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
A11 wounds	13 183		,	978	a	:	, , ,	**	
0730-0829 hrs	295		::	2 5		::	1,334	7 '	12.1
			:	33	33	0.1	8	`	10.6
	7716		:	5	2	14.7	139	27	10.8
1230-1529 hrs.	2,743		7.2	154	19	12,3	202	54	11.7
1530-2400 hrs.	393		7.4	207	2	9.2	652	8	2
0000-0729 hrs.	223	16	7.2	2	`		267	32	15
Not reported	135		, ,	`			•	٠,٠	•
	}	`	;		m	47.9	n	•	0.0
Adjusted rate*			6.7			12.2			-
Time	Urgen	Urgency of operation	ation						
operation	Urgen	Urgency not reported	orted	Ad Justed	-				
began	Total	Infected	Percent	Derrent	_				
(military time)	wounds	wounds	infected	infecteday					
					T				
All wounds	250	50	8.0		_				
0730-0929 hre.	78	9	7.7	6.9	_				
0930-1229 hrs.	72	•	6.9	7.6	-				
1230-1529 hrs.	2	•	10.01	-	_				
	2	. <		::	_				
	9:	•	2.	•	_				
0000-0/29 hrs.	2	•	000	7,3					
Not reported	_	0	0:0						
			-						

*Incidence of infection by urgency of operation adjusted to a uniform time operation began distribution.

Table B-33

Incidence of Infection by Classification of Operation and Time Operation Began, Combined Hospitals

							Classific	Classification of operation	peration						
Time operation	æ	Refined-clean	an		Other clean	g	Cle	Clean-contaminated	Inated	Contar	Contaminated and dirty	direv	2	1000	
began	Total	Infacted	Parcent	Total	Infacted	Darrant	Total	Tafactad	Deme					Not reported	
(military time)	wounds	wounds	infected		Mounda	Infected			rercent		Intected Percent	Fercent	Total	Infected	Percent
All wounds	6.656	222		2034	37.2	7 4	2 580	200	10 0	*Ounds	Wounds	Inrected	Mounds	Wounds	infected
		:	:	5	710	•	4,707	207	۵. در	797,1	//7	21.9	72	٠	8.3
0730-0929 hrs.	2,550	1	3.0	2,071	153	7.4	1,004	96	0.6	265	28	21.9	7	• •	1 2
0930-1229 hrs.	2,237	2	3.5	1,379	901	7.3	652	83	12.7	254	9	27.2	18	٠-	27.7
1230-1529 hrs.	1,482	22	3.8	947	71	7.5	760	9	12.2	222	2 6	25.7	3:	-	0.0
1530-2400 hrs.	193	m	1.6	426	35	8.0	307	*		346	8	10.7	; °	- د	0.0
0000-0729 hrs.	66	4	4.0	171	10	8.5	125		7.2	169	3 8	13.6		٠,	6.21
Not reported	95	7	2.1	3	4	10.0	==	4	36.4	9	2	33.3	2 0	>	0.0
Adjusted rate*			3.2			7.4			8 01			23.7			
Time operation	Adjusted	P											_		
began	percent														
(military time)	infected**	**P													
All wounds		_													
0730-0929 hrs.	6.9														
0930-1229 hrs.	8.2														
1230-1529 hrs.	8.2														
1530-2400 hrs.	6.7														
0000-0729 hrs.	5.9														
Not reported		٦													
	1														

*Incidence of infection by classification of operation adjusted to a uniform time operation began distribution. **Incidence of infection by time operation began adjusted to a uniform classification of operation distribution.

Table B-34

Incidence of Infection by Month of Operation,
Combined Hospitals

Month and Year of	Total	Infected	Percent
Operation	wounds	wounds	infected
All wounds	15,613	1,157	7.4
November, 1959	63	2	3.2
December, 1959	78	3	3.8
January, 1960	457	31	6.8
February, 1960	630	48	7.6
March, 1960	717	66	9.2
April, 1960	710	63	8.9
May, 1960	764	59	7.7
June, 1960	815	68	8.3
July, 1960	463	38	8.2
August, 1960	671	59	8.8
September, 1960	772	76	9.8
October, 1960	758	61	8.0
November, 1960	677	55	8.1
December, 1960	656	53	8.1
January, 1961	617	43	7.0
February, 1961	573	52	9.1
March, 1961	679	43	6,3
April, 1961	538	25	4.6
May, 1961	683	62	9.1
June, 1961	603	56	9.3
July, 1961	349	25	7.2
August, 1961	596	31	5 .2
September, 1961	499	17	3.4
October, 1961	671	33	4.9
November, 1961	637	39	6.1
December, 1961	530	31	5.8
January, 1962	407	18	4.4
<u> </u>	L		

Table B-35

Incidence of Infection by Month and Year of Operation and Treatment Status,

Combined Hospitals

		Ultraviolet			Control		Adjusted
Month and year	Total	Infected	Percent	Total	Infected	Percent	percent.
of operation	wounds	wounds	infected	wounds	wounds	infected	infected**
All wounds	7,594	559	7.4	8,019	598	7.5	
November, 1959	1 733	i	2.6	24	i	4.2	3.4
December, 1959	38	ō	0.0	40	3	7.5	3.9
January, 1960	209	13	6.2	248	18	7.3	6.8
February, 1960	324	31	9.6	306	17	5.6	7.5
March, 1960	364	37	10.2	353	29	8.2	9.2
April, 1960	354	34	9.6	356	29	8.1	8.8
May, 1960	351	24	6.8	413	35	8.5	7.7
June, 1960	423	40	9.5	392	28	7.1	8.3
July, 1960	227	14	6.2	236	24	10.2	8.3
August, 1960	340	25	7.4	331	34	10.3	8.9
September, 1960	362	25	6.9	410	51	12.4	9.7
October, 1960	383	26	6.8	375	35	9.3	8.1
	334	23	6.9	343	32	9.3	8.1
November, 1960	334	27	8.1	322	26	8.1	8.1
December, 1960	285	24	8.4	332	19	5.7	7.0
January, 1961	282	27	9.6	291	25	8.6	9.1
February, 1961	327	25	7.6	352	18	5.1	6.3
March, 1961	240	111	4.6	298	14	4.7	4.7
April, 1961	337	34	10.1	346	28	8.1	9.1
May, 1961	297	26	8.8	306	30	9.8	9.3
June, 1961	170	14	8.2	179	11	6.1	7.1
July, 1961	271	12	4.4	325	19	5.8	5.1
August, 1961	253	12	1.6	246	13	5.3	3.5
September, 1961	336	16	4.8	335	17	5.1	5.0
October, 1961	261	20	7.7	376	19	5.1	6.4
November, 1961	265	16	6.0	265	15	5.7	5.8
December, 1961	188	10	5.3	219	8	3.7	4.5
January, 1962	100	10	7.5	1			l
Adjusted rate*	 		7.3			7.5	

 $[\]star Incidence$ of infection by treatment status adjusted to a uniform month and year of operation distribution.

 $^{{\}star\star} Incidence$ of infection by month and year of operation adjusted to a uniform treatment status distribution.

Table B-36

Incidence of Infection by Month of Operation and Classification of Operation, Combined Hospitals

		Refined-cle	an		Other cles	in	C	lean-contami	inated
Month and year	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
of operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
	1	l		i		}			
All wounds	6,656	222	3,3	5,034	372	7.4	2,589	280	10.8
November, 1959	31	0	0.0	26	1.	3.8	5	1	20.0
December, 1959	38	0	0.0	26	0	0.0	10	2	20.0
January, 1960	194	5	2.6	156	9	5.8	68	5	7.4
February, 1960	261	4	1.5	210	19	9.0	108	15	13.9
March, 1960	293	7	2.4	237	27	11.4	130	17	13.1
April, 1960	302	11	3.6	233	27	11.6	108	14	13.0
May, 1960	347	13	3.7	249	14	5.6	113	15	13.3
June, 1960	405	17	4.2	245	20	8.2	109	14	12.8
July, 1960	239	12	5.0	112	11	9.8	7 2	7	9.7
August, 1960	266	15	5.6	209	15	7.2	128	11	8.6
September, 1960	321	22	6.9	251	20	8.0	132	8	6.1
October, 1960	321	13	4.0	253	24	9.5	114	9	7.9
November, 1960	314	10	3.2	205	15	7.3	105	16	15.2
December, 1960	273	6	2.2	208	19	9.1	114	17	14.9
January, 1961	276	9	3.3	180	9	5.0	94	6	6.4
February, 1961	241	9	3.7	173	19	11.0	114	9	7.9
March, 1961	298	11	3.7	212	11	5.2	123	12	9.8
April, 1961	236	3	1.3	162	7	4.3	105	10	9.5
May, 1961	257	6	2.3	238	22	9.2	132	22	16.7
June, 1961	237	7	3.0	206	24	11.7	106	11	10.4
July, 1961	133	4	3.0	103	7	6.8	80	l 10 l	12.5
August, 1961	239	7	2.9	220	5	2.3	81	14	17.3
September, 1961	196	4	2.0	169	5	3.0	82	5	6.1
October, 1961	285	7	2.5	228	15	6.6	104	6	5.8
November, 1961	267	7	2.6	217	13	6.0	93	11	11.8
December, 1961	216	8	3.7	165	9	5.5	96	8	8.3
January, 1962	170	5	2.9	141	5	3.5	63	5	7.9
Adjusted rate*			3.3			7.4			10.9

		ontaminate	d	Γ	Dirty		No.	ot reporte	đ	
Month and year	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Ad justed
of operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	percent infected**
All wounds	681	111	16.3	581	166	28.6	72	6		
November, 1959	i		0.0	0	100	20.0	16	Ö	8.3	
December, 1959	3	lŏ	0.0	i	li	100.0	0	0	-	4.6
January, 1960	20	6	30.0	18	6	33.3	i	ŏ	0.0	7.1
February, 1960	24	li	4.2	25	ğ	36.0	2	١٥	0.0	6.8
March, 1960	29	7	24.1	26	í á	30.8	2	ŏ	0.0	7.4
April, 1960	43	ģ	20.9	22	2	9.1	2	0		9.1
May, 1960	26	l á	30.8	28	و ا	32.1	1	0	0.0	6.7
June, 1960	23	6	26.1	31	11	35.5	2	0	0.0	8.2
July, 1960	14	l ĭ	7.1	25	6	24.0	1	,	0.0	9.1
August, 1960	30	1 7	23.3	34	111	32.4	4	1	100.0	8.1
September, 1960	34	1 7	20.6	33	19	57.6		0	0.0	8.4
October, 1960	32	ĺś	15.6	36	10	27.8	1	0	0.0	9.6
November, 1960	24	1 5	20.8	28			2	0	0.0	7.8
December, 1960	33	6	18.2	26	9	32.1	1	0	0.0	8.4
January, 1961	24	4		42	5	19.2	2	0	0.0	7.9
February, 1961	21	5	16.7		15	35.7	1	0	0.0	6.2
March, 1961	21 22	3	23.8	23	10	43.5	1	0	0.0	9.1
April, 1961	14		18.2	18	4	22.2	6	1	16.7	6.5
May, 1961	29	2 7	14.3	18 21	3	16.7	3	0	0.0	4.8
June, 1961	30	6	24.1	16	8	19.0 50.0	6 8	1 6	16.7	8.5
July, 1961	17	2	11.8	15	2	13.3	ů	0	0.0	9.6
August, 1961	39	4	10.3	12	ő	0.0	5	1 0	0.0	6.6
September, 1961	34	1 7	0.0	15	3	20.0	3	1 1	20.0	5.3
October, 1961	32	2	6.2	19	2			0	0.0	3.6
November, 1961	38	3	7.9	14	4	10.5	3	1	33.3	4.8
December, 1961	26	2	7.7	24	1 .	28.6	8	1	12.5	6.4
January, 1962	19	2	10.5	11	1 4	16.7	3	0	0.0	5.7
January, 1902	19	'	10.5	"	1	9.1	3	0	0.0	4.5
Adjusted rate*			17.1			27.3			1	ш

^{*}Incidence of infection by classification of operation adjusted to a uniform month and year of operation distribution.

^{**} Incidence of infection by month and year of operation adjusted to a uniform classification of operation distribution.

 ${\bf Table\ B-37}$ Incidence of Infection by Month and Year of Operation and Hospital

		Hospital	1		Hospital	2		Hospital	3
Month and year	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
of o peration	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
								1	1
All wounds	2,338	112	4.8	2,965	209	7.0	2,573	302	11.7
November, 1959	63	2	3.2	e	0	-	0	0	-
December, 1959	75	2	2.7	0	0	-	0	0	-
January, 1960	74	4	5.4	91	3	3.3	54	5	9.3
February, 1960	70	2	2.9	111	10	9.0	107	18	16.8
March, 1960	76	7	9.2	131	4	3.1	133	15	11.3
April, 1960	60	1	1.7	170	5	2.9	126	21	16.7
May, 1960	95	4	4.2	156	8	5.1	121	22	18.2
June, 1960	99	2	2.0	164	8	4.9	134	26	19.4
July, 1960	73	3	4.1	147	10	6.8	128	22	17.2
August, 1960	100	3	3.0	138	16	11.6	141	20	14.2
September, 1960	89	5	5.6	171	21	12.3	138	17	12.3
October, 1960	98	7	7.1	150	9	6,0	156	15	9.6
November, 1960	93	3	3.2	147	17	11.6	166	17	10.2
December, 1960	87	3	3.4	118	11	9.3	157	10	6.4
January, 1961	88	4	4.5	177	21	11.9	2	0	0.0
February, 1961	77	4	5.2	166	19	11.4	0	0	-
March, 1961	108	3	2.8	166	14	8.4	0	0	-
April, 1961	81	4	4.9	65	5	7.7	0	0	-
May, 1961	97	5	5.2	0	0	-	163	35	21.5
June, 1961	93	6	6.5	20	0	0.0	152	26	17.1
July, 1961	82	5	6.1	87	5	5.7	81	12	14.8
August, 1961	104	9	8.7	83	1	1.2	143	7	4.9
September, 1961	85	4	4.7	63	1	1.6	112	4	3.6
October, 1961	92	4	4.3	127	3	2.4	80	4	5.0
November, 1961	92	2	2.2	106	6	5.7	107	5	4.7
December, 1961	85	6	7.1	89	5	5.6	79	0	0.0
January, 1962	102	8	7.8	122	7	5.7	93	1	1.1
Adjusted rate*		.	4.7			6.1		•	9.7

	II.	Hospital 4			Hospital 5	
Month and year	Total	Infected	Percent	Total	Infected	Percent
of operation	wounds	wounds	infected	wounds	wounds	infected
All wounds	2,567	78	3.0	5,170	456	8.8
November, 1959	0	0	-	0	0	-
December, 1959	3	1	33.3	0	0	-
January, 1960	97	6	6.2	141	13	9.2
February, 1960	105	2	1.9	237	16	6.8
March, 1960	105	2	1.9	272	38	14.0
April, 1960	120	6	5.0	234	30	12.8
May, 1960	121	6	5.0	271	19	7.0
June, 1960	114	1	0.9	304	31	10.2
July, 1960	115	3	2.6	0	0	-
August, 1960	83	2	2.4	209	18	8.6
September, 1960	94	3	3.2	280	30	10.7
October, 1960	107	2	1.9	24 7	28	11.3
November, 1960	112	5	4.5	159	13	8.2
December, 1960	88	2	2,3	206	27	13.1
January, 1961	106	4	3.8	244	14	5.7
February, 1961	95	4	4.2	235	25	10.6
March, 1961	107	0	0.0	298	26	8.7
April, 1961	99	2	2.0	293	14	4.8
May, 1961	123	2	1.6	300	20	6.7
June, 1961	121	5	4.1	217	19	8.8
July, 1961	99	3	3.0	0	0	-
August, 1961	84	4	4.8	182	10	5.5
September, 1961	92	3	3.3	147	5	3.4
October, 1961	95	ĭ	1.1	277	21	7.6
November, 1961	96	3	3.1	236	23	9.7
December, 1961	96	4	4.2	181	16	8.8
	90	2	2.2	0	0	-
January, 1962						
Adjusted rate*			3.1			8.1

^{*}Incidence of infection by treatment status adjusted to a uniform month and year of operation distribution.

Table B-38 Incidence of Infection by Prophylactic Antibiotics Used and Classification of Operation, Combined Hospitals

	11				Prophylac	tic antibi	otics a	ministere	d			
Classification		None		Or	e or more		Pen:	cillin on	ıly	Tet	racycline	only
of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
All wounds	10,502	465	4.4	4,642	665	14.3	375	21	5.6	517	85	16.4
Refined-clean	5,389	126	2.3	875	82	9.4	109	4	3.7	166	23	13.9
Other clean	3,451	187	5.4	1,538	180	11.7	111	7	6.3	161	24	14.9
Clean-contaminated	1,138	77	6.8	1,437	200	13.9	85	4	4.7	121	19	15.7
Contaminated	293	31	10.6	377	77	20.4	34	4	11.8	35	6	17.1
Dirty	198	44	22.2	3 79	120	31.7	34	2	5.9	30	13	43.3
Not reported	33	0	0.0	36	6	16.7	2	0	0.0	4	0	0.0
Adjusted rate*			5 .2			12.2			5.1			15.8
					Prophylac	tic antibi	otics ac	ministere	ed			
					Penicilli	n.		Penicilli	n		Penicil1	.in
Classification	Chlor	amphenico	1 only	and	strepton	nycin	and	tetracyc	line	and	chloramph	
of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	wounds		infected
All wounds	620	101	16.3	1,306	170	13.0	556	37	6.7	160	23	14.4
Refined-clean	119	14	11.8	200	19	9.5	70	2	2.9	22	3	13.6
Other clean	197	21	10.7	563	51	9.1	97	6	6.2	50	8	16.0
Clean-contaminated	224	38	17.0	389	53	13.6	194	12	6.2	47	4	8.5
Contaminated	36	9	25.0	84	17	20.2	89	5	5.6	25	6	24.0
Dirty	40	18	45.0	55	27	49.1	106	12	11.3	15	2	13.3
Not reported	4	1	25.0	15	3	20.0	0	0	-	11_	0	0.0
Adjusted rate*			14.1			12.0			5.0			14.0
	1		Proph	ylactic	antibioti	cs adminis	tered					
	Penic	Ilin str	ptomycin							Ħ	- 1	
Classification		hloramphe		ļ	Other	:	i	Not repo		Adjus		
of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected		perce		
operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	infect	ed**	
All wounds	249	69	27.7	859	159	18.5	469	27	5.8	II	ŧ	
Refined-clean	37	7	18.9	152	10	6.6	392	14	3.6	4.4		
Other clean	98	19	19.4	261	44	16.9	45	5	11.1	7.3		
Clean-contaminated	55	11	20.0	322	59	18.3	14	3	21.4	8.9		
Contaminated	23	14	60.9	51	16	31.4	11	3	27.3	14.2		
	34	17	50.0	65	29	44.6	4	2	50.0	27.0		

Adjusted rate* *Incidence of infection by prophylactic antibiotics administered adjusted to a uniform classification of operation distribution.

22.2

Not reported

Table B-39 Incidence of Infection by Prophylactic Antibiotic Used and Hospital

	T			Pro	phylactic	antibiotic	s admini	stered				
1 1		None			One or mor		Pe	nicillin			racycline	
1	Total	Infected	Percent	Total	Infected	Percent		Infected			Infected	Percent
Hospital	wounds	wounds	infected	wounds	wounds	infected		wounds	infected	wounds	wounds	infected
Combined hospitals	10,502	465	4.4	4,642	665	14.3	375	21	5.6	517	85	16.4
Hospital 1	1,664	42	2.5	665	69	10.4	13	0	0.0	128	14	10.9
Hospital 2	2,418	84	3.5	429	118	27.5	19	2	10.5	130	38	29.2
Hospital 3	1,577	143	9.1	950	153	16.1	67	7	10.4	144	17	11.8
Hospital 4	1,651	25	1.5	911	53	5.8	232	7	3.0	51	5	9.8
Hospital 5	3,192	171	5.4	1,687	272	16.1	44	5	11.4	64	11	17.2
Adjusted rate*			4.6		L	15.7			8.0			16.4
Au lusted Tate				Pr	ophylactic	antibioti	cs admin	istered				
1					Penicillin			Penicilli	n	I	enicillin	
1	Ch1c	ramphenic	1 only	and	streptomy	cin	and	tetracyc	line		chloramph	
1	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent		Infected	
Hospital	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	wounds		infected
Combined hospitals	620	101	16.3	1,306	170	13.0	556	37	6.7	160	23	14.4
Hospital 1	156	15	9.6	213	18	8.5	2	0	0.0	0	0	l l
Hospital 2	57	23	40.4	164	35	21.3	2	0	0.0	2	0	0.0
Hospital 3	177	36	20.3	198	19	9.6	9	1	11.1	13	2	15.4
Hospital 4	7	0	0.0	2	0	0.0	541	35	6.5	34	2	5.9
Hospital 5	223	27	12.1	729	98	13.4	2	1	50.0	111	19	17.1
Adjusted rate*		L	16.5			11.3		<u> </u>	19.5		L	9.2
Adjusted rate-	 			lactic a	ntibiotics		red					
	Pantat	llin, str		I actic	MC10101101		1			l	1	
1		chloramp			Other		No.	t reporte	ed	Adjust	ed	
		Infected	Percent	Total	Infected	Percent		Infected		perce		
Hospital	wounds	wounds	infected	wounds	wounds	infected		wounds	infected	infecte	d**	
Combined hospitals	249	69	27.7	859	159	18.5	469	27	5.8	l	1	
Hospital 1	10	3	30.0	143	19	13.3	9	1	11.1	4.5	ł	
Hospital 2	9	4	44.4	46	16	34.8	118	7	5.9	9.9	1	
Hospital 3	25	7	28.0	317	64	20.2	46	6	13.0	10.8	1	
Hospital 4	o	0	-	44	4	9.1	5	0	0.0	2.3	ı	
Hospital 5	205	55	26.8	309	56	18.1	291	13	4.5	8.8	1	
	 	<u> </u>	26.4		L	19.4	 		L			
Adjusted rate*	ш		20.4	<u></u>								

^{*}Imeidence of infection by prophylactic antibiotic used adjusted to a uniform hospital distribution.

^{**}Incidence of infection by classification of operation adjusted to a uniform prophylactic antibiorics administered distribution.

Table B-40

Incidence of Infection by Prophylactic Antibiotic Used and Duration of Operation, Combined Hospitals

				Pr	ophylactic	antibioti	ic admini	istered				
		None			One or mor	e		Penicillir	only	T	etracyclin	e only
Duration of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
All wounds	10,502	465	4.4	4,642	665	14.3	375	21	5.6	517	85	16.4
Under 30 min.	984	23	2.3	130	18	13.8	27	3	11.1	17	3	17.6
30-59 min.	2,431	93	3.8	474	79	16.7	57	3	5.3	67	15	22.4
1-< 2 hrs.	4,144	149	3.6	1,482	209	14.1	128	2	1.6	184	29	15.8
2< 3 hrs.	1,691	105	6.2	1,097	145	13.2	76	3	3.9	111	13	11.7
3-< 4 hrs.	632	47	7.4	657	81	12.3	46	3	6.5	64	14	21.9
4-< 5 hrs.	274	23	8.4	370	47	12.7	17	2	11.8	34	5	14.7
5-< 6 hrs.	125	10	8.0	210	42	20.0	13	2	15.4	17	4	23.5
6+ hrs.	74	8	10.8	190	38	20.0	10	2	20.0	19	1	5.3
Not reported	147	7	4.8	32	6	18.8	1	1	100.0	4	1	25.0
Adjusted rate*	 	L	4.4	 		13.0			4.9			15.4

	11			Pro	phylactic	antibiotic	adminis	tered				
				P	enicillin		P	enicillin		P	enicillin	
	Chlo	ramphenico	1 only	and	streptomyc	in	and	tetracycl	ine		chloramphe	
Duration of operation	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	infected	wounds		infected
All wounds	620	101	16.3	1,306	170	13.0	556	37	6.7	160	23	14.4
Under 30 min.	10	2	20.0	24	2	8.3	23	2	8.7	5	0	0.0
30-59 min.	49	7	14.3	117	21	17.9	77	8	10.4	18	3	16.7
1-< 2 hrs.	227	29	12.8	420	64	15.2	170	12	7.1	37	5	13.5
2-< 3 hrs.	156	33	21.2	338	38	11.2	117	8	6.8	37	7	18.9
3-< 4 hrs.	72	12	16.7	196	16	8.2	66	3	4.5	27	4	14.8
4-< 5 hrs.	40	5	12.5	104	11	10.6	53	2	3.8	18	1	5.6
5-< 6 hrs.	28	4	14.3	63	11	17.5	22	2	9.1	7	0	0.0
6+ hrs.	30	7	23.3	37	7	18.9	26	0	0.0	9	1	11.1
Not reported	8	2	25.0	7	0	0.0	2	0	0.0	2	2	100.0
Adjusted rate*	#	L	14.5		L	12.2			6.7			12.0

Mulusten Iste.										
			Pro	phylacti	c antibiot	ic adminis	tered			1
	Penicil	lin, strep	tomycin,						1	
- 11	and	chloramphe	nicol	L	Other			t reported		Adjusted
Duration of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	percent
operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	infected**
All wounds	249	69	27.7	859	159	18.5	469	27	5.8	1
Under 30 min.	2	2	100.0	22	4	18.2	226	7	3.1	7.0
30-59 min.	15	8	53.3	74	14	18.9	150	9	6.0	8.2
1-< 2 hrs.	64	17	26.6	252	51	20.2	45	5	11.1	6.9
2-< 3 hrs.	58	12	20.7	204	31	15.2	18	3	16.7	8.3
3-< 4 hrs.	50	11	22.0	136	18	13.2	6	1	16.7	8.9
4-< 5 hrs.	22	8	36.4	82	13	15.9	7	1	14.3	9.7
5-< 6 hrs.	21	6	28.6	39	13	33.3	2	0	0.0	11.5
6+ hrs.	16	5	31.2	43	15	34.9	3	1	33.3	13.4
Not reported	1	0	0.0	7	0	0.0	12	0	0.0	
Adjusted rate*			34.7	<u> </u>		16.6				_

^{*}Incidence of infection by prophylactic antibiotics used adjusted to a uniform duration of operation distribution.

^{**}Incidence of infection by duration of operation adjusted to a uniform prophylactic antibiotics used distribution.

Table B-41

Incidence of Infection by Prophylactic Antibiotics Used and Urgency of Operation, Combined Hospitals

				Prop	hylactic an	tibiotics	administ	ered				
1		None			One or mor	e	l Pe	nicillin o	nly	Tet	racycline	only
Urgency of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
All wounds	10,502	465	4.4	4,642	665	14.3	375	21	5.6	517	85	16.4
Elective	9,317	396	4.3	3,424	458	13.4	274	17	6.2	424	73	17.2
Urgent	403	24	6.0	437	74	16.9	21	2	9.5	22	3	13.6
Emergency	629	38	6.0	690	121	17.5	74	2	2.7	58	8	13.8
Not reported	153	7	4.6	91	12	13.2	6	0	0.0	13	1	7.7
Adjusted rate*			4.5			13.9			6.1			16.7

				Pro	phylactic a	ntibiotics	adminis	tered				
1							P	enicillin	&	P	enicillin	6
1	Chlo	ramphenico	1 only	Penicil:	lin & strep	tomycin	te	tracycline		ch1	orampheni	co1
Urgency of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
operation	wounds	wounds	infected	wounds	wound s	infected	wounds	wounds	infected	wounds	wounds	infected
All wounds	620	101	16.3	1,306	170	13.0	556	37	6.7	160	23	14.4
Elective	484	71	14.7	1,029	117	11.4	298	20	6.7	98	12	12.2
Urgent	59	10	16.9	132	24	18.2	54	2	3.7	34	7	20.6
Emergency	64	17	26.6	124	27	21.8	190	15	7.9	25	4	16.0
Not reported	13	3	23.1	21	2	9.5	14	0	0.0	3	0	0.0
Adjusted rate*			15.9			12.7			6.6			13.0

1			Prophyl	actic an	tiblotics s	dministere				
		illin, str			Other			ot reporte		Adjusted
1 _										
Urgency of operation	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds		Total wounds	Infected wounds	Percent infected	percent infected**
All wounds	249	69	27.7	859	159	18.5	469	27	5.8	
Elective	154	38	24.7	663	110	16.6	442	23	5.2	7.0
Urgent	44	10	22.7	71	16	22.5	6	1	16.7	9.1
Emergency	51	21	41.2	104	27	26.0	15	2	13.3	10.3
Not reported	0	0	•	21	6	28.6	6	1	16.7	
Adjusted rates	1		26.0			17 7				

^{*}Incidence of infection by prophylactic antibiotics used adjusted to a uniform urgency of operation distribution.

Table B-42
Incidence of Infection by Prophylactic Antibiotics Used and Preoperative Hospital Stay, Combined Hospitals

				Prophy	lactic and	tibiotics	administ	ered				
		None			ne or more		N P	enicillin	only	Tetra	cycline or	aly
	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds		Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected
All wounds Under 2 days 2-6 days 7-13 days 14-20 days	10,502 5,364 3,054 1,134 424	465 216 138 51 23	4.4 4.0 4.5 4.5 5.4	4,642 1,399 1,736 793 321	665 184 209 124 59	14.3 13.2 12.0 15.6 18.4	375 135 112 56 31	21 7 4 5	5.6 5.2 3.6 8.9 6.5	517 175 186 82 33	85 22 30 15	16.4 12.6 16.1 18.3 33.3
21+ days Not reported	434 92	33 4	7.6 4.3	334 59	80 9	24.0 15.3	39 2	3	7.7 0.0	32 9	6	18.8 11.1
Adjusted rate*	1		4.5	L		13.9	<u> </u>		5.4			15.7

				Propl	ylactic ar	tibiotics	adminis	tered				
1								Penicillin	&	Pen	icillin &	
	Chlor	ramphenicol	only	Penici1	llin & stre	ptomycin		tetracycli	ne	chlo	ramphenic	
Preoperative hospital stay	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected
All wounds	620	101	16.3	1,306	170	13.0	556	37	6.7	160	23	14.4
Under 2 days	188	29	15.4	362	58	16.0	238	16	6.7	30	4	13.3
2-6 days	245	42	17.1	576	53	9.2	107	6	5.6	52	5	9.6
7-13 days	112	11	9.8	233	35	15.0	81	2	2.5	40	9	22.5
14-20 days	34	7	20.6	60	6	10.0	51	4	7.8	16	2	12.5
21+ days	32	11	34.4	56	16	28.6	76	9	11.8	22	3	13.6
Not reported	9	ī	11.1	19	2	10.5	3	0	0.0	0	0	-
Adjusted rate*			16.4			14.1			6.1			13.3

			Prophyl:	actic ant	ibiotics a	dminister	ed			1 1
	Penicil	lin, strep	tomycin				1			1 1
	and c	hloramphen	icol		Other			ot reporte		Adjusted
Preoperative	Total	Infected	Percent	Total	Infected			Infected	Percent	percent
hospital stay	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	infected**
All wounds	249	69	27.7	859	159	18.5	469	27	5.8	
Under 2 days	51	12	23.5	220	36	16.4	423	17	4.0	7.0
2-6 days	98	17	17.3	360	52	14.4	30	7	23.3	6.7
7-13 days	51	18	35.3	138	29	21.0	5	1	20.0	7.8
14-20 days	30	13	43.3	66	14	21.2	1	0	0.0	9.1
21+ days	15	8	53.3	62	24	38.7	5	1	20.0	13.6
Not reported	4	i	25.0	13	4	30.8	5	1	20.0	
Addusted veter			25.5	 		17.7				

^{*}Incidence of infection by prophylactic antibiotics used adjusted to a uniform preoperative hospital stay distribution.

^{**}Incidence of infection by urgency of operation adjusted to a uniform prophylactic antibiotics used distribution.

^{**}Incidence of infection by preoperative hospital stay adjusted to a uniform prophylactic antibiotics used distribution.

Table B-43

Incidence of Infection by Prophylactic Antibiotics Used and Nutritional and Metabolic Patient Factors, Combined Hospitals

	TL.		Prop	hylactic	antibiotic	s administe	red		
Nutritional		None			One or mo	re		Penicillin	only
and metabolic	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
patient factors	wounds	wounds	infected		wounds	infected		wounds	infected
All wounds	10,502	465	4.4	4,642	665	14.3	375	21	5.6
With diabetes	198	12	6.1	156	23	14.7	20	1	5.0
Without diabetes	10,244	449	4.4	4,420	634	14.3	349	20	5.7
With steroid therapy	63	3	4.8	56	16	28.6	1	0	0.0
Without steroid therapy	10,379	458	4.4	4,520	641	14.2	368	21	5.7
With severe obesity	99	14	14.1	66	16	24.2	10	3	30.0
Without severe obesity	10,343	447	4.3	4,510	641	14.2	359	18	5.0
With severe malnutrition	25	3	12.0	41	12	29.3	1	0	0.0
Without severe malnutrition	10,417	458	4.4	4,535	645	14.2	368	21	5.7
Not reported	60	4	6.7	66	8	12.1	6	0	0.0
Rate adjusted for:									
Diabetes Steroid therapy Severe obesity Severe malnutrition			4.4 4.4 4.4 4.4			14.3 14.3 14.3 14.3			5.7 5.7 5.3 5.7

	L		Pro	ophylacti	c antibioti	cs administ	ered		
Nutritional	Te	etracycline	only	L Chl	oramphenico	ol only	Penicil	lin and st	reptomycin
and metabolic	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
patient factors	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
All wounds	517	85	16.4	620	101	16.3	1,306	170	13.0
With diabetes	22	4	18.2	18	3	16.7	18	4	22.2
Without diabetes	484	80	16.5	593	97	16.4	1,272	163	12.8
With steroid therapy	6	1	16.7	11	2	18.2	11	1	9.1
Without steroid therapy	500	83	16.6	600	98	16.3	1,279	166	13.0
With severe obesity	15	3	20.0	7	2	28.6	12	4	33.3
Without severe obesity	491	81	16.5	604	98	16.2	1,278	163	12.8
With severe malnutrition	4	1	25.0	7	2	28.6	8	2	25.0
Without severe malnutrition	502	83	16.5	604	98	16.2	1,282	165	12.9
Not reported	11	1	9.1	9	1	11.1	16	3	18.8
Rate adjusted for:									
Diabetes			16.5			16.4	l		13.0
Steroid therapy			16.6	1	İ	16.3	1		13.0
Severe obesity	1		16.5	i		16.3	İ		13.0
Severe malnutrition	1		16.5	1		16.3]		13.0
				i		l			

Table B-43 (continued)

Incidence of Infection by Prophylactic Antibiotics Used and Nutritional and Metabolic Patient Factors, Combined Hospitals

	T		Prophy	lactic and	ibiotics a	dministered			
	P	enicillin a	nd	Pe	nicillin a	nd	Penicil	lin, strep	tomycin
Nutritional		tetracyclin			oremphenic			hlorampher	
and metabolic	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	
patient factors	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
All wounds	556	37	6.7	160	23	14.4	249	69	27.7
With diabetes	29	2	6.9	7	1	14.3	13	1	7.7
Without diabetes	524	35	6.7	151	22	14.6	235	68	28.9
With steroid therapy	1	0	0.0	2	0	0.0	6	2	33.3
Without steroid therapy	552	37	6.7	156	23	14.7	242	67	27.7
With severe obesity	4	0	0.0	2	0	0.0	0	٥	-
Without severe ebesity	549	37	6.7	156	23	14.7	248	69	27.8
With severe malnutrition	5	1	20.0	2	0	0.0	1	0	0.0
Without severe malnutrition	548	36	6.6	156	23	14.7	247	69	27.9
Not reported	3	0	0.0	2	0	0.0	1	0	0.0
Rate adjusted for:									
Diabetes Steriod therapy Severe obesity Severe malnutrition			6.7 6.6 6.6 6.7			14.6 14.6 14.5 14.6			28.4 27.7 27.5 27.8

		P	rophylactic a	ntibiotics	administered		1
Nutritional		Other			Not reported		Adjusted
and metabolic	Total	Infected	Percent	Total	Infected	Percent	percent
patient factors	wounds	wounds	infected	wounds	wounds	infected	infected*
All wounds	859	159	18.5	469	27	5.8	
With diabetes	29	7	24.1	2	2	100.0	9.5
Without diabetes	812	149	18.3	464	25	5.4	7.4
With steroid therapy	18	10	55.6	0	0	-	9.1
Without steroid therapy	823	146	17.7	466	27	5.8	7.4
With severe obesity	16	4	25.0	1	0	0.0	16.7
Without severe obesity	825	152	18.4	465	27	5.8	7.3
With severe malnutrition	13	6	46.2	1	0	0.0	15.9
Without severe malnutrition	828	150	18.1	465	27	5.8	7.4
Not reported	18	3	16.7	3	0	0.0	
Rate adjusted for:							is.
Diabetes			18.4				
Steriod therapy	[]		18.0				
Severe obesity	11		18.5	11			
Severe malnutrition	11		18.2	11			

^{*}Incidence of infection for specific nutritional or metabolic patient factor categories adjusted to a uniform prophylacticantibiotics-used distribution.

Table B-44 Incidence of Infection by Duration of Preoperative Hospitalization and Classification of Operation

				Durat	ion of pr	eoperative	hospit	alization				
		Outpatient	E	U	nder 2 da	ys		2-6 days			7-13 days	
Classification of operation	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percen
All wounds	403	12	3.0	6,783	405	6.0	4,820	354	7.3	1,932	176	9.1
Refined-clean	366	10	2.7	3,101	92	3.0	1,955	64	3.3	693	28	4.0
Other clean	25	0	0.0	2,246	130	5.8	1,682	139	8.3	644	56	8.7
Clean-contaminated	3	0	0.0	791	79	10.0	915	93	10.2	434	52	12.0
Contaminated and	ļ		}	ł	I	l	1	l				
dirty	9	2	22.2	612	103	16.8	255	57	22.4	150	39	26.0
Not reported	0	0		33	1	3.0	13	1	7.7	11	1	9.1
Adjusted rate*		٠	3.0			6.2			7.6			8.6
						hospitali	zation				 -	
		14-20 day	8	21	days and	over	1	ot report	ed	Adjuste	ed	
Classification of	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	percer	ıt	
operation	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	infect	***	
111 younds	746	82	11.0	773	114	14.7	156	14	9.0			
Refined-clean	255	15	5.9	237	13	5.5	49	0	0.0	3.5	- 1	
Other clean	202	19	9.4	188	24	12.8	47	4	8.5	7.3	- 1	
Clean-contaminated	191	19	9.9	213	30	14.1	42	7	16.7	10.3	- 1	
				ł	ı		i	1			ı	
Contaminated and	1 1	I	ł	ł	ŧ.							
	89	29	32.6	129	44	34.1	18	3	16,7	21.5	- 1	
Contaminated and	89 9	29 0	32.6 0.0	129 6	44 3	34.1 50.0	18 0	3 0	16.7 -	21.5		

Adjusted rate*

9.9

11.6

*Incidence of infection by duration of preoperative hospitalization adjusted to a uniform classification of operation distribution.

Table B-45 Incidence of Infection by Nutritional and Metabolic Patient Factors and Hospital

Patient factors		Hospital 1			Hospital 2			Hospital 3		
predisposed for infection	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	
All wounds	2,338	112	4.8	2,965	209	7.0	2,573	302	11.7	
With diabetes Without diabetes	2,266	101	15.1 4.5	2,910	3 205	5.7 7.0	2,516	297	13.0 11.8	
With steroid therapy Without steroid therapy	15 2,304	3 106	20.0 4.6	17 2,946	1 207	5.9 7.0	30 2,509	9 291	30.0 11.6	
With severe obesity Without severe obesity	25 2,294	3 106	12.0 4.6	27 2,936	3 205	11.1 7.0	81 2,458	20 280	24.7 11.4	
With severe malnutrition Without severe malnutrition	17 2,302	1 108	5.9 4.7	5 2,958	0 208	0.0 7.0	35 2,504	13 287	37.1 11.5	
Not reported	19	3	15.8	2	1	50.0	34	2	5.9	
Rate adjusted for:										
Diabetes Steroid therapy Severe obesity Severe malnutrition			4.7 4.7 4.7 4.7			7.0 7.0 7.0 7.0			11.8 11.7 11.5 11.6	

Patient factors	II	Hospital 4			Hospital 5		Ad justed
predisposed for infection	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Percent infected	percent infected*
11 wounds	2,567	78	3.0	5,170	456	8.8	
With diabetes	125	6	4.8	102	17	16.7	11.8
Without diabetes	2,412	71	2.9	5,024	434	8.6	7.3
With steroid therapy	2	9 77	0,0	55	6	10.9	12.7
Without steroid therapy	2,535	77	3.0	5,071	445	8.8	7.3
With severe obesity	20	0	0,0	13	4	30.8	18.2
Without severe obesity	2,517	77	3,1	5,113	447	8.7	7.3
With severe malnutrition	7	1	14,3	3	0	0.0	9.3
Without severe malnutrition	2,530	76	3.0	5,123	451	8.8	7.3
Not reported	30	1	3,3	44	5	11.4	
late adjusted for:	 	The second secon					
Diabetes	II.		2.9			8.8	
Steroid therapy			3.0			8.8	
Severe malnutrition	11		3.1			8.8	

^{*}Incidence of infection by hospital adjusted to a uniform nutritional and metabolic patient factors.

Severe obesity Severe malnutrition

^{***} Incidence of infection by classification of operation adjusted to a uniform duration of preoperative hospitalization distribution.

Table B-46

Incidence of Infection by Remote Infections and Hospital

		No remote infection			One or more		Ad justed
	Total	Infected	Percent	Total	Infected	Percent	percent
Hospital	wounds	wounds	infected	wounds	wounds	infected	infected**
Combined hospitals	14,732	993	6.7	799	147	18.4	
Hospital 1	2,163	85	3.9	145	16	11.0	4.3
Hospital 2	2,878	196	6.8	79	11	13.9	7.2
Hospital 3	2,306	262	11.4	242	40	16.5	11.7
Hospital 4	2,562	76	3.0	2	1	50.0	5.4
Hospital 5	4,823	374	7.8	331	79	23.9	8.6
Adjusted rate*		L	6.8	 	<u> </u>	23.1	

^{*}Incidence of infection by remote infection adjusted to a uniform hospital distribution.

Table B-47
Incidence of Infection by Wound Closure and Hospital

		Wound closure												
	No	ne or part	ial		Primary		1	Secondary		Skin graft				
	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent		
Hospital	wounds	wounds	infected	wounds	wounds	infected	wounds	wound s	infected	wounds	wounds	infected		
Combined hospitals	402	61	15.2	14,836	1,032	7.0	39	11	28.2	221	38	17.2		
			ł	l				1	ł			l		
Hospital l	3 8	5	13.2	2,256	104	4.6	1	1	100.0	16	2	12.5		
Hospital 2	127	14	11.0	2,787	178	6.4	17	3	17.6	25	12	48.0		
Hospital 3	71	23	32.4	2,449	270	11.0	3	1	33.3	18	6	33.3		
Hospital 4	45	4	8.9	2,461	69	2.8	12	3	25.0	41	1	2.4		
Hospital 5	121	15	12.4	4,833	411	8.4	6	3	50.0	121	17	14.0		
			i	L				l			1			
Adjusted rate*			15.0			7.0			44.5			21.5		

			Wound clo	sure			
		Other		l N	ot reporte	ed	Ad justed
	Total	Infected	Percent	Total	Infected	Percent	percent
Hospital	wounds	wounds	infected	wounds	wounds	infected	infected**
Combined hospitals	36	12	33.3	79	3	3.8	
	F	Ī	1		Ì		
Hospital 1	4	0	0.0	23	0	0.0	5.2
Hospital 2	8	2	25.0	1	0	0.0	7.2
Hospital 3	1	0	0.0	31	2	6.5	11.9
Hospital 4	0	-	-	8	1	12.5	3.0
Hospital 5	23	10	43.5	16	0	0.0	8.8
Adjusted rate*	 	L	19.2		<u> </u>	L	1

^{*}Incidence of infection by wound closure adjusted to a uniform hospital distribution.

^{***} Incidence of infection by hospital adjusted to a uniform remote infection distribution.

Incidence of infection by hospital adjusted to a uniform wound closure distribution.

 ${\bf Table~B-48}$ Incidence of Infection by Duration of Preoperative Hospitalization and Hospital

				Dur	ation of p	reoperati	ve hospi	talization	1			
1		Outpatient	:	U	nder 2 day	78		2-6 days			7-13 days	3
ł i	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
Hospital	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected
Combined hospitals	403	12	3.0	6,783	4 0 5	6.0	4,820	354	7.3	1,932	176	9.1
Hospital 1	1	0	0.0	1,438	48	3.3	535	32	6.0	198	16	8.1
Hospital 2	111	7	6.3	1,087	53	4.9	1,088	68	6.2	414	33	8.0
Hospital 3	14	0	0.0	1,469	130	8.8	674	91	13.5	193	38	19.7
Hospital 4	5	0	0.0	893	27	3.0	762	13	1.7	349	9	2.6
Hospital 5	272	5	1.8	1,896	147	7.8	1,761	150	8.5	778	80	10.3
Adjusted rate*			1.8			6.0			7.4			9.8

			Duration	of preop	erative h	ospitaliza	tion			
		14-20 days	3	21	days and o	over	No	t reported	!	Adjusted
	Total	Infected	Percent	Total	Infected		Total	Infected	Percent	percent
Hospital	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	infected**
Combined hospitals	746	82	11.0	773	114	14.7	156	14	9.0	
Hospital 1	72	7	9.7	44	7	15.9	50	2	4.0	5.6
Hospital 2	142	19	13.4	119	29	24.4	4	0	0.0	7.1
Hospital 3	82	18	22.0	85	19	22.4	56	6	10.7	12.7
Hospital 4	210	9	4.3	336	20	6.0	12	0	0.0	2.7
Hospital 5	240	29	12.1	189	39	20.6	34	6	17.6	9.0
Adjusted rate*	 	L	12.3			18.5		L	LJ	

^{*}Incidence of infection by duration of preoperative hospitalization adjusted to a uniform hospital distribution.

Table B-49
Incidence of Infection by Duration of Operation and Hospital

Duration of operation

	Und	er 30 min	ites	3	0-59 minu	tes	1 an	d under 2	hours	2 ar	d under 3	hours
	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent	Total	Infected	Percent
Hospital	wounds	wounds	infected	wounds	wounds	infected	wounds	wounds	infected	wounds		infected
Combined hospitals	1,340	48	3.6	3,055	181	5.9	5,671	363	6.4	2,806	253	9.0
Hospital 1	263	4	1.5	394	15	3.8	883	31	3.5	446	23	5.2
Hospital 2	271	16	5.9	588	36	6.5	1,156	66	5.7	529	45	8.5
Hospital 3	83	-4	4.8	317	27	8.5	855	89	10.4	589	65	11.0
Hospital 4	131	4	3.1	489	16	3.3	1,101	22	2.2	447	18	4.0
Hospital 5	592	20	3.4	1,267	85	6.7	1,766	155	8.8	795	102	12.8
Adjusted rate*			3.8		L	6.0		L	6.6		L	9.1
Adjusted rate.			1 3.0				 					
		·				of operat		d under 6	h	7 2 1	ours and	
		d under 4			d under 5		Total	Infected	Percent	Total		Percent
	Total	Infected		Total		infected	wounds	wounds	infected	wounds	wounds	infected
Hospital	wounds		infected	wounds	wounds			52		267	47	17.6
Combined hospitals	1,295	129	10.0	651	71	10.9	337	32	15.4	20/	l " "	17.8
Hospital 1	169	13	7.7	88	10	11.4	29	8	27.6	20	3	15.0
Hospital 2	177	18	10.2	85	8	9.4	81	9	11.1	67	9	13.4
Hospital 3	341	53	15.5	189	24	12.7	97	17	17.5	82	23	28.0
Hospital 4	236	7	3.0	125	5	4.0	56	4	7.1	55	2	3.6
Hospital 5	37€	38	10.2	164	24	14.6	74	14	18.9	43	10	23.3
Adjusted rate*		L	9.5		L	11.1		l	16.6			17.7
		ion of op										
	n N	ot report	ed	Ad tus	sted i							

	Durat	ion of ope	ration	
	N	ot reporte	ed	Ad justed
	Total	Infected	Percent	percent
Hospital	wounds	wounds	infected	infected**
Combined hospitals	191	13	6.8	
Ĭ		l	1	
Hospital 1	46	5	10.9	5.1
Hospital 2	11	0	0.0	7.2
Hospital 3	20	0	0.0	10.6
Hospital 4	17	0	0.0	3.1
Hospital 5	97	8	8.2	9.5
· ·				

^{*}Incidence of infection by duration of operation adjusted to a uniform hospital distribution.

^{**}Incidence of infection by hospital adjusted to a uniform duration of preoperative hospitalization distribution.

^{**}Incidence of infection by hospital adjusted to a uniform duration of operation distribution.

Table B-50 Incidence of Infection by Urgency and Hospital

	Usseney of operation												
1		Elective			UFBERE		Emergency						
Hospital	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Persent infected	TOTAL Wounds	Infected wounds	Percent infected				
Combined hospitals	13,183	877	6.7	846	99	11.7	1,334	161	12.1				
Hospital 1 Hospital 2 Hospital 3 Hospital 4 Hospital 5	2,283 2,826 2,031 1,749 4,294	105 194 222 4 9 307	4.6 6.9 10.9 2.8 7.1	20 20 82 194 530	4 3 11 4 77	20.0 15.0 13.4 2.1 14.5	23 76 361 550 324	3 10 56 24 68	13.0 13.2 15.5 4.4 21.0				
Adjusted rate*			6.6		<u> </u>	13.2			14.7				

		ncy of oper		
1		ncy not rep	orted	Adjusted
Hospital	Total wounds	Infected wounds	Percent infected	percent infected**
Combi ned hospitals	250	20	8,8	
Hospital 1	12	0	0.0	6.2
Hospital 2	43	2	4.7	7.9
Hospital 3	99	13	13.1	11.4
Hospital 4	74	1	1.4	2.9
Hospital 5	22	4	18,2	8.7

^{*}Incidence of infection by urgency of operation adjusted to a uniform hospital distribution.

Table B-51 Incidence of Indestion by Drain Site Provided and Hospital

					Sma or more drain sites provided							
	No dr	ain site p	rovided				3056 with	or without	round		us cavity or without	
Hospital	Total wounds	Infected wounds	Percent infected	Total wounds	Infected wounds	Persent infected	TOTAL wounds	infected	percent infected	Total wounds	Infected wounds	Percent infected
Combined hospitals	9,447	474	5.0	6,105	678	11.1	3,014	346	11:3	1,422	171	12.0
Hospital 1	1,301	35	2.7	1,019	76	7.5	444	38	8.6	105	6	5.7
Hospital 2	1,881	105	5.6	1.084	104	9.6	524	47	9.0	419	42	5:7 10:0 23:2
Hospital 3	1,559	119	7.6	1.006	1.03	18.2	677	125	18.5	56	13	23.2
Hospital 4	1,931	44	2.3	636	34	5,3	370	23	6.2	71	- 5	7.0
Hospital 5	2,775	171	6.2	2,358	281	5,3 11.5	999	113	11.3	771	105	113.6
Adjusted rate*			5.2			10.8			10,8			12.2

		One or	more drai	n sites	provided		
		Remote					
	with	or without	other	Dysin	site not	reported	Ad justed
	Total	Infected	Percent	Total	Infected	Percent	percent
Hospital	wounds	wounds	infected	wounds	younds	infected	infected**
Combined hospitals	2,042	230	11.3	61	3	8,2	
Hospital 1	500	34	6.8	18	1	5,6	4.6
Hospital 2	193	23	11.9	0	-		7:%
Hospital 3	303	53	17.5	6	0	0.0	4:6 7:4 12:3
Hospital 4	195	6	3.1	0	-	l - I	3.6
Hospital 5	851	114	13.4	37	4	10.8	8,7
Adjusted rate*	<u> </u>	L	11.1				J

djusted rate* 11.1
*Incidence of infection by drain site provided adjusted to a uniform hospital distribution.

^{**}Incidence of infection by hospitals adjusted to a uniform urgency of operation distribution.

^{**}Incidence of infection by hospital adjusted to a uniform drain site provided distribution.

APPENDIX C

STANDARD BACTERIOLOGIC METHODS

THE bacteriologists of each of the participating institutions held several discussions during the organizational meeting at Cincinnati General Hospital, as well as during the workshop held at the Communicable Disease Center. There was general agreement that standardized methods were to be employed whenever possible, with the realization, however, that the limitations imposed by the comprehensive nature of the study precluded a detailed analysis for differentiation of all organisms at the species and strain level. For this reason, the choice of methods for identification of organisms other than staphylococci was left to the discretion of the individual bacteriologist and organisms were to be reported only by genus.

The standard methods employed by all groups for obtaining and culturing the specimens, performing the coagulase test, determining antibiotic sensitivities, and phage typing staphylococci are outlined below. The methods of anaerobiosis varied among the five institutions.

a. Methods for Obtaining Specimens for Culture

(1) Personnel Cultures

Personnel cultures were obtained by swabbing both anterior nares with a single dry swab.

(2) Wound Cultures

Postoperative wound drainage cultures were obtained by swabbing the wound with two dry cotton applicator swabs. The swabs were cultured as soon as possible; those which could not be cultured immediately were preserved in 1 to 2 ml of thioglycollate broth at refrigerator temperature until they could be cultured.

b. Methods of Culture

(1) Personnel

Swabs of the anterior nares were streaked on a single blood agar plate and incubated aerobically for 24 and 48 hr at 37 C.

(2) Wounds

Each specimen was cultured on aerobic and anaerobic blood agar plates, on eosin methylene blue agar plates, and in a tube of cooked-meat medium (Difco). The blood plates were prepared with 2-percent rabbit or horse blood in a brain-heart infusion or trypticase-soy agar base. Aerobic plates were incubated for 24 to 48 hr and the anaerobic plates for 48 to 72 hr at 37 C. Gram-stained smears were made of the cooked-meat cultures at 3, 5, 7, and 10 days, and subcultures were made on aerobic and anaerobic blood agar plates whenever the gram-stained smears revealed morphological forms that had not been observed on the primary agar plates. A culture was not reported as negative until after 10 days of incubation of the cookedmeat medium.

Urine and other biological fluids were sedimented by centrifugation and cultured in the same manner as wound cultures.

Blood specimens were cultured in Castanéda blood-culture bottles and incubated for 10 days before being reported as negative.

c. Methods of Determining Antibiotic Sensitivities

Sensitivity tests were done only on coagulase-positive staphylococci from the personnel cultures, and on both coagulase-positive and coagulase-negative staphylococci from operative wound cultures,

postoperative wound drainages, and postoperative cultures from other sites of infection. The tests were performed by spreading with a cotton swab an 18- to 24-hour brain-heart infusion broth (BBL) culture over the surface of a plate of brainheart infusion agar (BBL). Standard 100 x 15-mm Petri dishes containing 11 ml of medium were employed. Low-concentration BBL Sensi-discs were placed on the surface of the seeded agar after allowing 10 to 15 min for drying. The organism was reported as sensitive if any clear, distinct zone of inhibition surrounded the disc after overnight incubation at 37 C. The antibiotics used were penicillin, streptomycin, tetracycline, chloramphenicol, erythromycin, and novobiocin.

d. Method of Performing Coagulase Test

Coagulase tests were conducted by introducing 0.1 ml of an 18- to 24-hr brainheart infusion broth culture into 0.5 ml of commercial dehydrated coagulase plasma (BBL). The mixture was incubated for 3 hr at 37 C. The presence of any small, definite clot indicated a positive test for

coagulase activity. Coagulase-positive and -negative controls were run each time the test was performed. The control cultures used by all participating institutions were derived from the same strains.

e. Method of Phage Typing Staphylococci

Staphylococci were phage-typed by the method recommended by the Communicable Disease Center (1958), which furnished the phage suspensions and propagating strains to each participating institution. The only modification of the method involved the use of a #30 hypodermic needle for dropping the routine test dilution (RTD) on the plates. Phages were propagated at the Communicable Disease Center. Each participating institution titrated the phage suspensions received from the Communicable Disease Center to determine the RTD to be employed in typing.

The phages employed were 29, 52, 52A, 79, 80, 3A, 3B, 3C, 55, 71, 6, 7, 42E, 47, 53, 54, 73, 75, 77, 42D, 187, 83(VA4), 44A, and 81. Use of phages 44A and 73 was discontinued, however, in September, 1960.

APPENDIX D DETAILED BACTERIOLOGIC DATA

Table D-1

Percent Frequency of Coagulase-Positive Staphylococci in Personnel Cultures,
by Month and Year and by Individual Hospital

Month and			Hosp:	ital	
year	1	2	3	4	5
November 1959	41.7				
December	24.5				
January 1960	6.4	23.3	28.8	24.6	46.4
February	84.2	19.0	26.7	14.0	32.6
March	20.2	21.1	37.2	10.7	38.2
April	16.7	26.3	22.8	19.4	40.3
May	18.7	23.4	32.5	17.2	
June	0.0	22.0	38.8	13.5	
July	16.4	19.7	32.9	17.4	
August	41.2	16.7	38.2	14.8	32.5
September	44.0	13.0	25.6	17.4	25.0
October	21.4	8.0	25.0	16.4	30.5
November	13.0	13.3	29.0	16.2	23.2
December	42.9	7.3	34.7	9.7	31.8
January 1961	17.4	15.4	29.3	13.7	20.1
February	12.3	12.1	37.0	22.7	21.8
March	9.7	12.6	36.0	23.9	15.3
April	3.3	12.1		25.0	20.2
May	10.0		22.1	19.3	17.7
June	16.9	21.1	29.4	29.8	30.0
July	20.6	11.2	36.4	23.1	
August	25.9	7.6	30.8	28.2	28.2
September	15.1	8.5	24.2	19.4	20.0
October	1.2	12.0	34.8	38.5	29.
November	0.0	8.0	36.4	14.3	29.
December	4.2	4.0		31.0	26.3
January 1962		5.2	29.5	18.8	

^{--:} no cultures reported.

Table D-2

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of All Wounds, by Individual Hospital

	Hospi	tal 1	Hospit	al 2	Hospi	tal 3	Hospi	tal 4	Hospi	tal 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total wounds cultured	139	100	353	100	189	100	292	100	415	100
Sterile cultures	10	7.2	137	38.8	27	14.3	44	15.1	101	24.3
Organism:										
Coagpos. staphylococci	21	15.1	49	13.9	43	22.8	80	27.4	75	18.1
Coagneg. staphylococci	38	27.3	94	26.6	69	36.5	72	24.7	177	42.7
Alpha-hemolytic streptococci	5	3.6	9	2.5	2	1.1	5	1.7	15	3.6
Beta-hemolytic streptococci	0	0.0	15	4.2	3	1.6	8	2.7	7	1.7
Nonhemolytic streptococci	5	3.6	34	9.6	20	10.6	36	12.3	27	6.5
Angerobic streptococci	0	0.0	2	0.6	0	0.0	4	1.4	0	0.0
Escherichia sp.	33	23.7	40	11.3	36	19.0	53	18.2	47	11.3
Aerobacter-Klebsiella	10	7.2	12	3.4	13	6.9	26	8.9	26	6.3
Paracolobactrum sp.	1	0.7	11	3.1	3	1.6	18	6.2	29	7.0
Proteus sp.	10	7.2	26	7.4	16	8.5	23	7.9	35	8.4
Pseudomonas sp.	9	6.5	24	6.8	24	12.7	24	8.2	31	7.5
Clostridium sp.	í	0.7	4	1.1	1	0.5	2	0.7	1	0.3
Bacteroides sp.	ō	0.0	2	0.6	7	3.7	9	3.1	0	0.0
Other	35	25.2	26	7.4	54	28.6	110	37.7	64	15.4
Unidentified	3	2.2	1	0.3	2	1.1	3	1.0	1	0.2

Frequency of Organisms Cultured From Postoperative Drainage of All Wounds, by Postoperative Infection Status and by Individual Hospital

		Hospital	tall			Hospital	tal 2			Hospital	tal 3			Hospital	tal 4			Hospital	tal 5	
	Post	st-op.	Post-	g.	Post	do-	Post	-ob-	Post	-do-	Post-	9.	Post	-ob-	Post-op	90	Post-		Post-op,	9.
	Infe	ected	Non-infected	ected	Infe	Infected	Non-in	Non-infected	Infe	Infected	Non-infected	ected	Infe	Infected	Non-infected	ected	Infected		Non-infected	fected
	No	2	No.	2	Š.	2	Š.	2	N	7	No.	4	9	4	NO.	9	.02	1	5	ų
Toral wounds cultured	45	100	76	100	53	100	300	100	105	100	84	100	36	100	256	100	151	100	264	100
Sterile cultures	2	4.4	œ	8.5	6	17.0	128	42.7	m	2.9	54	28.6	0	0.0	5	7.7	77	14.0	2	6.67
Organism:												,	:	!	,	,	i		,	
oagpos. staphylococci	16	35.6	2	5.3	17	32.1	32	10.7	37	35.2	9	7.1	1/	4/.7	63	74.0	£ .	73.5	9	12.7
Cose -nee stanhylococci	13	28.9	25	26.6	4	7.5	90	30.0	33	31.4	36	42.9	12	33.3	09	23.4	19	40.4	116	43.9
labarbamolutic strantococci	ď	1.1	0	0.0	_	1.9	80	2.7	-	1.0	-	1.2	_	2.8	4	1.6	9	4.0	6	3.4
Alpha-memolytic streptococci	· C	0	· c	0.0	1	7.6	10	3,3	-	1.0	~	5.4	7	9.6	9	2.3	0	0.0	7	5.
era-memory erc sereprocess	-	2.0	4	4.3	00	15.1	56	8.7	12	11.4	∞	9.5	œ	22.2	28	10.9	6	0.9	18	9.8
Ansarohic attentionori	· C	0		0.0	0	0.0	7	0.7	0	0.0	0	0.0	-	2.8	٣	1.2	0	0.0	0	0
Amaci Out of the contra	3	28.9	20	21.3	13	24.5	27	9.0	23	21.9	13	15.5	6	25.0	77	17.2	53	19.2	18	9.9
Acceptant sp.	2	13.3	4	4.3	2	3.8	10	3,3	10	9.5	٣	3.6	4	11.1	22	9.8	12	7.9	14	5.
delodactel-niedsteina	· c		-	-	1 4	7.5	7	2.3	-	1.0	2	7.7	9	16.7	12	4.7	11	7.3	18	8.9
raiacolobactium sp.	۳ ر	7		7.7	- 2	22.6	14	4.7	12	11.4	7	4.8	9	16.7	17	9.9	19	12.6	16	6.1
Locate ap.	, ,	15.6	. ~		=	20.8	13	4.3	19	18.1	2	0.9		2.8	23	9.0	13	8.6	18	8.9
Clostefdim on	. –	2.2	0	0.0	<u>ر</u>	5.7	-	0,3	0	0.0	-	1.2		5.8	-	4.0	0	0.0	-	0.4
• 45 11111111111111111111111111111111111					-	-	-	0.3	7	~	~	3.6	2	5.6	7	2.7	0	0.0	0	0.0
bacteroides sp.	٠ د	•	9		٠.		' 6	, ,			, ;	22.1	13	33.3	86	38.3	27	17.9	37	14.0
Other	7	†. †	5	1.00	t	·.	77	?:	77	7.67	77	75.1	; -		, ,		i		; -	
Inidentified	0	0.0	e	3.2	0	0.0	-	0.3	7	1.9	0	0.0	-	7.8	7	0.0	>		-	5

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of All Wounds, by Ultraviolet Irradiation Status and by Individual Hospital

		Hospital	tal 1			Hospi	Hospital 2			Hospital	tal 3			Hospital	tal 4			Hospital	tal 5	
	Irradie	lated	Unirra	diated	Irrad	Lated	Unirradiate	ated	Irrad	diated	Unirradiate	iated	Irrad	diated	Unirradiate	iated	Irrad	diated	Unirrad	iated
	No.		No.	2	No. Z	22	No.	22	No.	52	No.	2	No.	2	No.	2	No.	24	No.	24
Total wounds cultured	89	100	71	100	179	001	174	100	97	100	92	100	14	100	148	100	50 50	100	214	100
Sterile cultures	2	7.4	2	7.0	75	41.9	62	35.6	19	19.6	œ	8.7	16	11.1	28	18.9	45	22.4	26	26.2
Organism:																				
Coagpos. staphylococi	2	14.7	==	15.5	77	11.7	58	16.1	15	15.5	78	30.4	45	31.3	35	23.6	32	17.4	9	18.7
Coagneg. staphylococci	17	25.0	21	29.6	4	24.6	20	28.7	38	39.5	31	33.7	33	27.1	33	22.3	8	44.3	88	41.1
Alpha-hemolytic streptococci	-	1.5	4	5.6	5	2.8	4	2.3	7	2.1	0	0.0	-	0.7	4	2.7	6	4.5	9	7.8
Beta-hemolytic streptococci	0	0.0	0	0.0	11	6.1	4	2.3	7	2.1	-	1:1	4	5.8	4	2.7	-	0.5	9	7.8
Nonhemolytic streptococci	٣	4.4	7	2.8	11	6.1	23	13.2	6	9.3	=	12.0	22	15.3	14	9.5	14	7.0	13	6.1
Anaerobic streptococci	0	0.0	0	0.0	-	9.0	1	9.0	0	0.0	0	0.0	4	2.8	0	0.0	0	0.0	0	0.0
Escherichia sp.	17	25.0	16	22.5	19	10.6	21	12.1	14	14.4	22	23.9	30	20.8	23	15.5	9	14.9	11	7.9
Aerobacter-Klebsiella	2	7.4	2	7.0	7	3.9	2	5.9	ς.	2.5	œ	8.7	11	9.	15	10.1	15	7.5	=	5.1
Paracolobactrum sp.	-	1.5	0	0.0	5	7.8	9	3.4	7	2.1	-	1:1	œ	2.6	2	8.9	14	7.0	15	7.0
Proteus sp.	m	4.4	7	6.6	16	8.9	10	5.7	=	11.3	5	5.4	6	6,3	14	9.5	77	10.4	14	6.5
Pseudomonas sp.	4	5.9	2	7.0	12	6.7	12	6.9	7	7.2	17	18.5	14	6.7	2	8.9	19	9.5	17	5.6
Clostridium sp.	_	1.5	0	0.0	ო	1.7	1	9.0	0	0.0	-	1:1	7	1.4	0	0:0	-	0.5	0	0.0
Bacteroides sp.	0	0.0	0	0.0	7	1.1	0	0.0	5	5.2	7	2.2	9	4.2	m	7.0	0	0.0	0	0.0
Other	21	30.0	14	19.7	11	6.1	15	8.6	53	29.9	52	27.2	28	40.3	25	35.1	31	15.4	33	15.4
Unidentified	9	4.4	0	0.0	-	9.0	0	0.0	0	0.0	7	2.2	-	0.7	7	1.4	-	0.5	0	0.0

Table D-5

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of All Wounds, by Ultraviolet Irradiation Status and by Postoperative Infection Status,

Individual Hospital

				Hospit	al 1			
		Trradi	ated			Unirra	diated	
	Infe	cted	Non-in	fected	Infe	cted	Non-in	fected
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total wounds cultured	18	100	50	100	27	100	44	100
Sterile cultures	1	5.6	4	8.0	1	3.7	4	9.1
Organism:								
Coagpos. staphylococci	6	33.3	4	8.0	10	37.0	1	2.3
Coagneg. staphylococci	5	27.8	12	24.0	8	29.6	13	29.5
Alpha-hemolytic streptococci	1	5.6	0	0.0	4	14.8	0	0.0
Beta-hemolytic streptococci	0	0.0	0	0.0	0	0.0	0	0.0
Nonhemolytic streptococci	1	5.6	2	4.0	0	0.0	2	4.5
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	6	33.3	11	22.0	7	25.9	9	20.5
Aerobacter-Klebsiella	2	11.1	3	6.0	4	14.8	1	2.3
Paracolobactrum sp.	0	0.0	1	2.0	0	0.0	0	0.0
Proteus sp.	1	5.6	2	4.0	2	7.4	5	11.4
Pseudomonas sp.	4	22.2	0	0.0	3	11.1	2	4.5
Clostridium sp.	1	5.6	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0	0	0.0	0	0.0
Other	1	5.6	20	40.0	1	3.7	13	29.5
Unidentified	0	0.0	3	6.0	0	0.0	0	0.0

Table D-6

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of All Wounds, by Ultraviolet Irradiation Status and by Postoperative Infection Status, Individual Hospital

				Hospit	al 2			
		Irradi	ated			Unirrad	iated	
	Infe	cted	Non-in	fected	Infe	cted	Non-in	fected
	Number	Percent	Number	Percent	Number	Percent	Number	Percen
Total wounds cultured	28	100	151	100	25	100	149	100
Sterile cultures	4	14.3	71	47.0	5	20.0	57	38.3
Organism:								
Coagpos. staphylococci	8	28.6	13	8.6	9	36.0	19	12.8
Coagneg. staphylococci	2	7.1	42	27.8	2	8.0	48	32.2
Alpha-hemolytic streptococci	1	3.6	4	2.6	0	0.0	4	2.7
Beta-hemolytic streptococci	4	14.3	7	4.6	1	4.0	3	2.0
Nonhemolytic streptococci	3	10.7	8	5.3	5	20.0	18	12.1
Anaerobic streptococci	0	0.0	1	0.7	0	0.0	1	0.7
Escherichia sp.	5	17.9	14	9.3	8	32.0	13	8.7
Aerobacter-Klebsiella	2	7.1	5	3.3	0	0.0	5	3.4
Paracolobactrum sp.	2	7.1	3	2.0	2	8.0	4	2.7
Proteus sp.	9	32.1	7	4.6	3	12.0	7	4.7
Pseudomonas sp.	6	21.4	6	4.0	5	20.0	7	4.7
Clostridium sp.	3	10.7	0	0.0	0	0.0	1	0.7
Bacteroides sp.	1	3.6	1	0.7	0	0.0	0	0.0
Other	3	10.7	8	5.3	1	4.0	14	9.4
Unidentified	0	0.0	1	0.7	0	0.0	0	0.0

Table D-7

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of All Wounds, by Ultraviolet Irradiation Status and by Postoperative Infection Status, Individual Hospital

				Hospi	tal 3			
		Irradi	ated			Unirradia	ited	
	Infe	cted	Non-ir	fected	Infe	cted	Non-ir	fected
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total wounds cultured	55	100	42	100	50	100	42	100
Sterile cultures	2	3.6	17	40.5	1	2.0	7	16.7
Organism:								
Coagpos. staphylococci	11	20.0	4	9.5	26	52.0	2	4.8
Coagneg. staphylococci	24	43.6	14	33.3	9	18.0	22	52.4
Alpha-hemolytic streptococci	1	1.8	1	2.4	0	0.0	0	0.0
Beta-hemolytic streptococci	0	0.0	2	4.8	1	2.0	0	0.0
Nonhemolytic streptococci	5	9.1	4	9.5	7	14.0	4	9.5
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	10	18.2	4	9.5	13	26.0	9	21.4
Aerobacter-Klebsiella	3	5.5	2	4.8	7	14.0	1	2.4
Paracolobactrum sp.	1	1.8	1	2.4	0	0.0	1	2.4
Proteus sp.	10	18.2	1	2.4	2	4.0	3	7.1
Pseudomonas sp.	- 5	9.1	2	4.8	14	28.0	3	7.1
	ñ	0.0	ō	0.0	0	0.0	1	2.4
Clostridium sp.	2	3.6	3	7.1	2	4.0	0	0.0
Bacteroides sp.			12	28.6	10	20.0	15	35.7
Other	17	30.9	0	0.0	2	4.0	10	0.0
Unidentified	0	0.0	U	0.0	2	4.0	v	0.0

Table D-8

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of All Wounds, by Ultraviolet Irradiation Status and by Postoperative Infection Status, Individual Hospital

				Hosp	ital 4			
		Irr	adiated			Unirrad	iated	
	Inf	ected	Non-ir	fected	Infe	ected	Non-in	fected
	Number	Percent	Number	Percent	Number	Percent	Number	Percen
Total wounds cultured	19	100	125	100	17	100	131	100
Sterile cultures	0	0.0	16	12.8	0	0.0	28	21.4
Organism:								
Coagpos. staphylococci	9	47.4	36	28.8	8	47.1	27	20.6
Coagneg. staphylococci	6	31.6	33	26.4	6	35.3	27	20.6
Alpha-hemolytic streptococci	0	0.0	1	0.8	1	5.9	3	2.3
Beta-hemolytic streptococci	1	5.3	3	2.4	1	5.9	3	2.3
Nonhemolytic streptococci	5	26.3	17	13.6	3	17.6	11	8.4
Anaerobic streptococci	1	5.3	3	2.4	0	0.0	0	0.0
Escherichia sp.	4	21.1	26	20.8	5	29.4	18	13.7
Aerobacter-Klebsiella	1	5. 3	10	8.0	3	17.6	12	9.2
Paracolobactrum sp.	4	21.1	4	3.2	2	11.8	8	6.1
Proteus sp.	2	10.5	7	5.6	4	23.5	10	7.6
Pseudomonas sp.	0	0.0	14	11.2	1	5.9	9	6.9
Clostridium sp.	1	5.3	1	0.8	0	0.0	0	0.0
Bacteroides sp.	2	10.5	4	3.2	0	0.0	3	2.3
Other	6	31.6	52	41.6	6	35.3	46	35.1
Unidentified	i	5.3	0	0.0	0	0.0	2	1.5

Table D-9

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of All Wounds, by Ultraviolet Irradiation Status and by Postoperative Infection Status, Individual Hospital

				Hospit	a1 5			
		Irrad	iated			Unirra	diated	
	Infe	cted	Non-in	fected	Infe	cted	Non-in	fected
	Number	Percent	Number	Percent	Number	Percent	Number	Percen
Total wounds cultured	77	100	124	100	74	100	140	100
Sterile cultures	11	14.3	34	27.4	11	14.9	45	32.1
Organism:								
Coagpos. staphylococci	16	20.8	19	15.3	19	25.7	21	15.0
Coagneg. staphylococci	33	42.9	56	45.2	2 8	37.8	60	42.9
Alpha-hemolytic streptococci	5	6.5	4	3.2	1	1.4	5	3.6
Beta-hemolytic streptococci	0	0.0	1	0.8	0	0.0	6	4.3
Nonhemolytic streptococci	6	7.8	8	6.5	3	4.1	10	7.1
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	19	24.7	11	8.9	10	13.5	7	5.0
Aerobacter-Klebsiella	7	9.1	8	6.5	5	6.8	6	4.3
Paracolobactrum sp.	6	7.8	8	6.5	5	6.8	10	7.1
Proteus sp.	12	15.6	9	7.3	7	9.5	7	5.0
Pseudomonas sp.	8	10.4	11	8.9	5	6.8	7	5.0
Clostridium sp.	0	0.0	1	0.8	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0	0	0.0	0	0.0
Other	15	19.5	16	12.9	12	16.2	21	15.0
Unidentified	0	0.0	1	0.8	0	0.0	0	0.0

Table D-10

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Clean Wounds That Developed Postoperative Infection, by Individual Hospital

	Hosp	ital l	Hospi	tal 2	Hospi	tal 3	Hospi	tal 4	Hospi	tal 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total wounds cultured	16	100	30	100	53	100	8	100	74	100
Sterile cultures	0	0.0	5	16.7	1	1.9	0	0.0	14	18.9
Organism:										
Coagpos. staphylococci	7	43.8	8	26.7	22	41.5	5	62.5	19	25.7
Coagneg. staphylococci	4	25.0	3	10.0	21	39.6	3	37.5	34	45.9
Alpha-hemolytic streptococci	1	6.3	1	3.3	0	0.0	1	12.5	4	5.4
Beta-hemolytic streptococci	0	0.0	4	13.3	1	1.9	1	12.5	0	0.0
Nonhemolytic streptococci	0	0.0	5	16.7	5	9.4	1	12.5	4	5.4
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	3	18.8	8	26.7	6	11.3	2	25.0	10	13.5
Aerobacter-Klebsiella	3	18.8	1	3.3	6	11.3	0	0.0	5	6.8
Paracolobactrum	Õ	0.0	2	6.7	1	1.9	1	12.5	5	6.8
Proteus sp.	i	6.3	8	26.7	3	5.7	2	25.0	6	8.1
Pseudomonas sp.	2	12.5	5	16.7	9	17.0	0	0.0	5	6.8
Clostridium sp.	ō	0.0	2	6.7	0	0.0	0	0.0	0	C.0
Bacteroides sp.	ñ	0.0	ī	3.3	2	3.8	1	12.5	0	0.0
Other	ň	0.0	2	6.7	8	15.1	4	50.0	9	12.2
Unidentified	ő	0.0	ő	0.0	ĭ	1.9	i	12.5	0	0.0

Table D-11

Frequency of Organisms Recovered From Cultures of Postoperative Drainage
of Clean-Contaminated Wounds That Developed Postoperative Infection, by Individual Hospital

		tal l	Hospi	tal 2	Hospi	tal 3	Hospi	tal 4	Hospi	tal 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percen
Total wounds cultured	17	100	12	100	40	100	13	100	41	100
Sterile cultures	2	11.8	1	8.3	0	0.0	0	0.0	4	9.8
Organism:										
Coagpos. staphylococci	5	29.4	5	41.7	13	32.5	2	15.4	6	14.6
Coagneg. staphylococci	7	41.2	0	0.0	12	30.0	6	46.2	15	36.6
Alpha-hemolytic streptococci	1	5.9	0	0.0	1	2.5	0	0.0	1	2.4
Beta-hemolytic streptococci	0	0.0	0	0.0	0	0.0	1	7.7	0	0.0
Nonhemolytic streptococci	0	0.0	3	25.0	4	10.0	2	15.4	2	4.9
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	4	23.5	3	25.0	10	25.0	3	23.1	8	19.5
Aerobacter-Klebsiella	2	11.8	1	8.3	4	10.0	3	23.1	6	14.6
Paracolobactrum sp.	0	0.0	1	8.3	0	0.0	3	23.1	1	2.4
Proteus sp.	1	5.9	1	8.3	7	17.5	3	23.1	7	17.1
Pseudomonas sp.	2	11.8	4	33.3	7	17.5	1	7.7	6	14.6
Clostridium sp.	1	5.9	1	8.3	0	0.0	1	7.7	0	0.0
Bacteroides sp.	Ō	0.0	ō	0.0	ō	0.0	ō	0.0	Ö	0.0
Other	2	11.8	Ö	0.0	18	45.0	5	38.5	9	22.0
Unidentified	ō	0.0	ŏ	0.0	1	2.5	ő	0.0	Ó	0.0

Table D-12

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Contaminated Wounds That Developed Postoperative Infection, by Individual Hospital

	Hospi	tal l	Hospi	tal 2	Hospi	tal 3	Hospi	tal 4		tal 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percen
Total woundscultured	5	100	1	100	5	100	6	100	20	100
Sterile cultures	0	0.0	0	0.0	1	20.0	0	0.0	2	10.0
Organism:										
Coagpos. staphylococci	3	60.0	0	0.0	1	20.0	4	66.7	6	30.0
Coagneg. staphylococci	0	0.0	0	0.0	0	0.0	2	33.3	8	40.0
Alpha-hemolytic streptococci	1	20.0	0	0.0	0	0.0	0	0.0	1	5.0
Beta-hemolytic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Nonhemolytic streptococci	1	20.0	0	0.0	0	0.0	3	50.0	1	5.0
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	3	60.0	1	100	3	60.0	3	50.0	5	25.0
Aerobacter-Klebsiella	Ó	0.0	0	0.0	0	0.0	1	16.7	0	0.0
Paracolobactrum sp.	0	0.0	0	0.0	0	0.0	0	0.0	5	25.0
Proteus sp.	0	0.0	0	0.0	0	0.0	0	0.0	5	25.0
Pseudomonas sp.	1	20.0	1	100	1	20.0	0	0.0	1	5.0
Clostridium sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	ō	0.0	0	0.0	0	0.0	2	40.0	0	0.0
Other	ŏ	0.0	ō	0.0	0	0.0	2	33.3	7	35.0
Unidentified	ō	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Table D-13

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Dirty Wounds That
Developed Postoperative Infection, by Individual Hospital

	Hospi	tal l	Hospi	tal 2	Hospi	tal 3	Hospi	tal 4	Hospi	tal 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total wounds cultured	7	100	10	100	7	100	9	100	16	100
Sterile cultures	0	0.0	3	30.0	1	14.3	0	0.0	2	12.5
Organism:										
Coagpos. staphylococci	1	14.3	4	40.0	1	14.3	6	66.7	4	25.0
Coagneg. staphylococci	2	28.6	1	10.0	0	0.0	1	11.1	4	25.0
Alpha-hemolytic streptococci	2	28.6	0	0.0	0	0.0	0	0.0	0	0.0
Beta-hemolytic streptococci	0	0.0	1	10.0	0	0.0	0	0.0	0	0.0
Nonhemolytic streptococci	0	0.0	0	0.0	3	42.9	.2	22.2	2	12.5
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	1	11.1	0	0.0
Escherichia sp.	3	42.9	1	10.0	4	57.1	1	11.1	6	37.5
Aerobacter-Klebsiella	1	14.3	0	0.0	0	0.0	0	0.0	1	6.3
Paracolobactrum sp.	0	0.0	1	10.0	0	0.0	2	22.2	0	0.0
Proteus sp.	1	14.3	3	30.0	2	28.6	1	11.1	1	6.3
Pseudomonas sp.	2	28.6	1	10.0	2	28.6	0	0.0	1	6.3
Clostridium sp.	ō	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	ō	0.0	ō	0.0	0	0.0	1	11.1	0	0.0
Other	Õ	0.0	2	20.0	1	14.3	1	11.1	2	12.5
Unidentified	ō	0.0	ō	0.0	0	0.0	0	0.0	0	0.0

Table D-14

Frequency of Organisms Recovered from Cultures of Postoperative Drainage of Clean Wounds That Did Not Develop Clinical Infection, by Individual Hospital

	Hospi	tal l	Hospi	tal 2	Hospi	tal 3	Hospi	tal 4	Hospi	tal 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percen
Total wounds cultured	47	100	235	100	48	100	97	100	166	100
Sterile cultures	5	10.6	100	42.6	13	27.1	21	21.6	55	33.1
Organism:										
Coagpos. staphylococci	3	6.4	23	9.8	3	6.3	25	25.8	22	13.3
Coagneg. staphylococci	13	27.7	75	31.9	24	50.0	23	23.7	80	48.2
Alpha-hemolytic streptococci	0	0.0	7	3.0	1	2.1	1	1.0	4	2.4
Beta-hemolytic streptococci	0	0.0	8	3.4	1	2.1	2	2.1	3	1.8
Nonhemolytic streptococci	3	6.4	17	7.2	2	4.2	8	8.2	12	7.2
Anaerobic streptococci	0	0.0	2	0.9	0	0.0	2	2.1	0	0.0
Escherichia sp.	7	14.9	24	10.2	2	4.2	9	9.3	7	4.2
Aerobacter-Klebsiella	3	6.4	8	3.4	3	6.3	7	7.2	7	4.2
Paracolobactrum sp.	0	0.0	5	2.1	1	2.1	4	4.1	7	4.2
Proteus sp.	4	8.5	8	3.4	0	0.0	6	6.2	9	5.4
Pseudomonas sp.	0	0.0	4	1.7	1	2.1	7	7.2	8	4.8
Clostridium sp.	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	1	0.4	1	2.1	6	6.2	0	0.0
Other	17	36.2	16	6.8	17	35.4	46	47.4	24	14.5
Unidentified	1	2.1	1	0.4	0	0.0	0	0.0	1	0.6

Table D-15

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Clean-Contaminated Wounds That Did Not Develop Clinical Infection, by Individual Hospital

	Hosp	ital 1	Hosp	ital 2	Hospi	tal 3	Hosp	ital 4	Hosp	ital 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percen
Total wounds cultured	40	100	53	100	29	100	98	100	66	100
Sterile cultures	2	5.0	25	47.2	8	27.6	13	13.3	18	27.3
Organism:										
Coagpos. staphylococci	2	5.0	5	9.4	3	10.3	25	25.5	12	18.2
Coagneg. staphylococci	10	25.0	12	22.6	9	31.0	27	27.6	23	34.8
Alpha-hemolytic streptococci	0	0.0	1	1.9	0	0.0	1	1.0	5	7.6
Beta-hemolytic streptococci	0	0.0	1	1.9	1	3.4	3	3.1	2	3.0
Nonhemolytic streptococci	1	2.5	6	11.3	5	17.2	12	12.2	4	6.1
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	1	1.0	0	0.0
Escherichia sp.	11	27.5	1	1.9	7	24.1	14	14.3	7	10.6
Aerobacter-Klebsiella	1	2.5	0	0.0	0	0.0	8	8.2	5	7.6
Paracolobactrum sp.	1	2.5	1	1.9	1	3.4	6	6.1	6	9.1
Proteus sp.	2	5.0	3	5.7	4	13.8	7	5.1	4	6.1
Pseudomonas sp.	1	2.5	6	11.3	4	13.8	8	8.2	8	12.1
Clostridium sp.	0	0.0	0	0.0	1	3.4	1	1.0	1	1.5
Bacteroides sp.	0	0.0	0	0.0	1	3.4	0	0.0	0	0.0
Other	15	37.5	5	9.4	9	31.0	35	34.7	8	12.1
Unidentified	2	5.0	0	0.0	0	0.0	2	2.0	0	0.0

Table D-16

Frequency of Organisms Recovered From Cultures of Postoperative Drainage
of Contaminated Wounds That Did Not Develop Clinical Infection, by Individual Hospital

	Hospi	tal l	Hospi	tal 2	Hospi	tal 3	Hospi	tal 4	Hospi	tal 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total wounds cultured	4	100	5	100	3	100	25	100	21	100
Sterile cultures	1	25.0	1	20.0	2	66.7	4	16.0	4	19.0
Organism:										
Coagpos. staphylococci	0	0.0	1	20.0	0	0.0	9	36.0	5	23.8
Coagneg. staphylococci	1	25.0	2	40.0	1	33.3	6	24.0	10	47.6
Alpha-hemolytic streptococci	0	0.0	0	0.0	0	0.0	1	4.0	0	0.0
Beta-hemolytic streptococci	0	0.0	1	20.0	0	0.0	0	0.0	1	4.8
Nonhemolytic streptococci	0	0.0	2	40.0	1	33.3	5	20.0	1	4.8
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	1	25.0	2	40.0	1	33.3	6	24.0	1	4.8
Aerobacter-Klebsiella	0	0.0	2	40.0	0	0.0	5	20.0	1	4.8
Paracolobactrum sp.	0	0.0	0	0.0	0	0.0	1	4.0	2	9.5
Proteus sp.	1	25.0	2	40.0	0	0.0	1	4.0	1	4.8
Pseudomonas sp.	0	0.0	2	40.0	0	0.0	2	8.0	1	4.8
Clostridium sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	Ó	0.0	Ó	0.0	0	0.0	0	0.0	0	0.0
Other	Ó	0.0	1	20.0	0	0.0	4	16.0	2	9.5
Unidentified	ŏ	0.0	ō	0.0	0	0.0	0	0.0	0	0.0

Table D-17

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Dirty Wounds
That Did Not Develop Clinical Infection, by Individual Hospital

	Hospi	tal l	Hospi	tal 2	Hospi	tal 3	Hospi	tal 4	Hospi	tal 5
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total wounds cultured	3	100	7	100	4	100	36	100	11	100
Sterile cultures	0	0.0	2	28.6	1	25.0	6	16.7	2	18.2
Organism:										
Coagpos. staphylococci	0	0.0	3	42.9	0	0.0	4	11.1	1	9.1
Coagneg. staphylococci	1	33.3	1	14.3	2	50.0	4	11.1	3	29.7
Alpha-hemolytic streptococc	i 0	0.0	0	0.0	٠0	0.0	1	2.8	0	0.0
Beta-hemolytic streptococci	. 0	0.0	0	0.0	0	0.0	1	2.8	1	9.1
Nonhemolytic streptococci	0	0.0	1	14.3	0	0.0	3	8.3	1	9.1
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	1	33.3	0	0.0	3	75.0	15	41.7	3	27.3
Aerobacter-Klebsiella	0	0.0	0	0.0	0	0.0	2	5.6	1	9.1
Paracolobactrum sp.	0	0.0	1	14.3	0	0.0	1	2.8	3	27.3
Proteus sp.	0	0.0	1	14.3	0	0.0	3	8.3	2	18.2
Pseudomonas sp.	1	33.3	1	14.3	0	0.0	6	16.7	1	9.1
Clostridium sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0	1	25.0	1	2.8	0	0.0
Other	1	33.3	0	0.0	1	25.0	13	36.1	3	27.3
Unidentified	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Clean Wounds That Developed Infection, by Ultraviolet Irradiation Status and by Individual Hospital

		Hospital	ital l			Hospital	tal 2			Hospital	ttal 3			Hospital	ital 4			Hospita	ital 5	
	Irrad	ia	Unirradiate	diated	æ	lia	Unirradiate	diated	Irra	Irradiated	Unirra	Ħ.	Irra	rradiated	Unirradiate	liated	Irra	rradiated	Unirradiate	diate
	Š.	%	No.	2	No.	2	No.	2	Š.	2	No.	2	No.	2	No.	2	No.	2	No.	*
otal wounds cultured	9	100	10	100	14	100	16	100	25	100	28	100	9	100	2	100	38	100	36	100
Sterile cultures	0	0.0	0	0.0	2	14.3	3	18.8	0	0.0	-	3.6	0	0.0	0	0.0	7	18.4	7	19.4
)rganism:																				
Coagpos. staphylococci	٣	50.0	4	40.0	2	14.3	9	37.5	9	24.0	16	57.1	7	66.7	-	50.0	ø	21.1	11	30.6
Coagneg. staphylococci	_	16.7	e	30.0	2	14.3		6.3	15	0.09	9	21.4	n	50.0	0	0.0	22	57.9	12	33,3
Alpha-hemolytic streptococci	0	0.0	-	10.0	1	7.1	0	0.00	0	0.0	0	0.0	0	0.0	1	50.0	4	10.5	0	0.0
Beta-hemolytic streptococci	0	0.0	0	0.0	4	28.6	0	0.0	0	0.0	-	3.6	-	16.7	0	0.0	0	0.0	0	0.0
Nonhemolytic streptococci	0	0.0	0	0.0	2	14.3	٣	18.3	-	7. 0	7	14.3	_	16.7	0	0.0	7	5.3	2	5.6
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.00	0	0.0
Escherichia sp.	-	16.7	7	20.0	٣	21.4	2	31.3	-	4.0	2	17.9	-	16.7	-	50.0	7	18.4	٣	8.3
Aerobacter-Klebsiella	0	0.0	ო	30.0	-	7.1	0	0.0	7	8.0	4	14.3	0	0.0	0	0.0	4	10.5	-	2.8
Paracolobactrum sp.	0	0.0	0	0.0	-	7.1	7	6.3	-	4.0	0	0.0	-	16.7	0	0.0	4	10.5	-	2.8
Proteus sp.		16.7	0	0.0	9	45.9	7	12.5	m	12.0	0	0.0	-	16.7	-	50.0	4	10.5	7	5.6
Pseudomonas sp.	-	16.7	-	10.0	7	14.3	٣	18.8	4	16.0	5	17.9	0	0.0	0	0.0	7	5.3	3	8.3
Clostridium sp.	0	0.0	0	0.0	7	14.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0		7.1	0	0.0	-	4.0	-	3.6	_	16.7	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	-	7.1	-	6.3	٣	12.0	2	17.9	٣	50.0	-1	50.0	7	18.4	2	5.6
Unidentified	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	3.6	_	16.7	0	0.0	С	0	c	0

Prequency of Organisms Recovered From Cultures of Postoperative Drainage of Clean-Contaminated Wounds That Developed Infections, by Ultraviolet Irradiation Status and by Individual Hospital Table D-19

		Hospital	tal 1			Hospital	:a1 2			Hospital	al 3			Hospita]	:a1 4			Hospita	81.5	1
	Irradia	diated	Unirrad	flated	Irradiated		Unirradiate	iated	Irrad	[rradiated [Unirradiate	ated	Irrad	rradiated	Unirradiate	iated	Irrad	rradiated	Intrrad	inted
	No.	~	No.	2	No.	2	No.	2	No.	2	No.	%	No.		No.	%	No.	%	No.	%
Total wounds cultured		100	12	90	7	100	v	100	76	90	4	100	7	100	a	100	"	901	<u>-</u>	5
	٠.		;	2	٠,	3	٠ ١	2	,	3	2 '	3	٠,	2		3	77	700	13	700
Sterile cultures	-	20.0	-	8.3	0	0.0		20.0	0	0.0	0	0.0	0	0.0	0	0.0	٣	13.6	1	5.3
Organism:																				
Coagpos. staphylococci	1	20.0	4	33.3	٣	45.9	7	40.0	5	20.8	œ	50.0	0	0.0	7	22.2	4	18.2	7	10.5
Coagneg. staphylococci	7	40.0	2	41.7	0	0.0	0	0.0	6	37.5	٣	18.8	-	25.0	5	55.6	80	36.4	7	36.8
Alpha-hemolytic streptococci	0	0.0	-	8.3	0	0.0	0	0.0	-	4.2	0	0.0	0	0.0	0	0.0	0	0.0	-	5.3
Beta-hemolytic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	11.1	0	0.0	0	0.0
Nonhemolytic streptococci	0	0.0	0	0.0	1	14.3	7	40.0	7	8.3	7	12.5	0	0.0	7	22.2	7	9.1	0	0.0
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	7	40.0	7	16.7	7	28.6	-	20.0	9	25.0	4	25.0		25.0	7	22.2	2	22.7	٣	15.8
Aerobacter-Klebsiella	7	40.0	0	0.0	_	14.3	0	0.0	_	4.2	٣	18.8	0	0.0	ო	33,3	٣	13.6	3	15.8
Paracolobactrum sp.	0	0.0	0	0.0	0	0.0	-	20.0	0	0.0	0	0.0	7	50.0	-	11.1	0	0.0		5.3
Proteus sp.	0	0.0	-	8.3	-	14.3	0	0.0	9	25.0	-	6.3	0	0.0	٣	33,3	2	22.7	2	10.5
Pseudomonas sp.	0	0.0	7	16.7	٣	45.9	-	20.0	0	0.0	7	43.8	0	0.0	-	11.1	2	22.7	-	5.3
Clostridium sp.	-	20.0	0	0.0	-	14.3	0	0.0	0	0.0	0	0.0	-	25.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	c	0.0	0	0.0	0	0.0	0	0.0
Other	-	20.0	-	8.3	0	0.0	0	0.0	13	54.2	2	31.2	2	50.0	ო	33,3	4	18.2	2	26.3
Unidentified	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	6.2	0	0.0	0	0.0	0	0.0	0	0.0

Table D-20
Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Conteminated Wounds
That Developed Infection, by Ultraviolet Irradiation Status and by Individual Hospital

			pital 1			Hospita	tal 2			Hospita	tal 3			Hospi	tal 4			Hospita	5 183	1
	Irra	Irradiated	Unirra	disted	Irrad	lated	Jnirrad	iated	Irrad	isted	Unirra	diated	Irra	flated	Unirrad	iated	Irrad	lated	Intrrad	lated
•	No.	2	No.	*	No.	*	8	24	No.	24	No.	2	Š	12	8	24	No.	52	δ.	14
Total wounds cultured	7	100	٣	100	0	0.0	1	100	7	100	٣	100	4	100	7	100	10	100	10	100
Sterile cultures	0	0.0	0	0.0	0	0.0	0	0.0	-	50.0	0	0.0	0	0.0	0	0.0	0	0.0	7	20.0
Organism:																				
Coagpos. staphylococci	7	100	-	33.3	0	0.0	0	0.0	0	0.0	1	33.3	7	50.0	7	100	٣	30.0	٣	30.0
Coagneg. staphylococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	25.0	-	50.0	7	20.0	9	0.09
Alpha-hemolytic streptococci	0	0.0	_	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	10.0	0	0.00
Beta-hemolytic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Nonhemolytic streptococci	-	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	ო	75.0	0	0.0	0	0.0	-	10.0
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	-	50.0	7	66.7	0	0.0	1	100	-	50.0	7	66.7	7	50.0		50.0	4	0.04	-	10.0
Aerobacter-Klebsiella	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	25.0	0	0.0	0	0.0	0	0.0
Paracolobactrum sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	20.0	٣	30.0
Proteus sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	e	30.0	7	20.0
Pseudomonas sp.		20.0	0	0.0	0	0.0	-	100	0	0.0	-	33.3	0	0.0	0	0.0	0	0.0		10.0
Clostridium sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0	0	0.0	0	0.0	-	50.0		33.3	0	0.0	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	25.0	-	50.0	٣	30.0	4	40.0
Unidentified	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Dirty Wounds That Developed Infection, by Ultraviolet Irradiation Status and by Individual Hospital Table D-21

		Hospital	ital l			Hospita]	:a1 2			Hospita]	tal 3			Hospita	tal 4			Hospita	tal 5	
	Irradiat	liated	Unirradi	liated	Irrad	iated	Jnirrad	liated	Irrad	iated	Unirra	liated	Irra	rradiated	Unirrad	iated	Irrac	rradiated	Unirradiate	listed
	No.	2	No.	2	No.	22	No.	2	No.	24	No.	*	8	2	No.	24	Š.	2	No.	12
Total wounds cultured	.	100	2	100	7	100	"	100	4	100	~	100		100	4	9	7	9	a	001
Sterile cultures	0	0.0	0	0.0	. 7	28.6	-	33.3	-	25.0	0	0.0	0	0.0	0	0.0	-	14.3		1:1
Organism:																				
Coag pos. staphylococci	0	0.0	7	50.0	က	45.9	1	33.3	0	0.0	-	33,3	٣	0.09	٣	75.0	1	14.3	က	33,3
Coagneg. staphylococci	7	40.0	0	0.0	0	0.0	-	33.3	0	0.0	0	0.0	-	20.0	0	0.0	-	14.3	ო	33,3
Alpha-hemolytic streptococci	-	20.0	-1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Beta-hemolytic streptococci	0	0.0	0	0.0	0	0.0	_	33,3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Nonhemolytic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	7	50.0	-	33.3	7	20.0	-	25.0	7	28.6	0	0.0
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		20.0	0	0.0	0	0.0	0	0:0
Escherichia sp.	7	40.0		50.0	0	0.0	-	33,3	7	50.0	7	66.7	0	0.0	-	25.0	ო	45.9	٣	33.3
Aerobacter-Klebsiella	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	11.1
Paracolobactrum sp.	0	0.0	0	0.0	-	14.3	0	0.0	0	0.0	0	0.0	-	20.0	-	25.0	0	0.0	0	0.0
Proteus sp.	0	0.0	-	50.0	7	28.6	-	33.3	-	25.0	7	33,3	-1	20.0	0	0.0	0	0.0	7	11.1
Pseudomonas sp.	7	40.0	0	0.0		14.3	0	0.0		25.0	-	33:3	0	0.0	0	0.0	-	14.3	0	0.0
Clostridium sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	20.0	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	7	28.6	0	0.0	-	25.0	0	0.0	0	0.0	_	25.0	7	14.3	7	11.1
Unidentified	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Frequency of Organisms Recovered From Cultures of Postoperative Drainsge of Clean Wounds That Did Not Develop Infection, by Ultraviolet Irradiation Status and by Individual Hospital

		Hospi	tal 1			Hospi	tal 2			Hospi	tal 3			Hospita	181 4			Hospital	al 5	
	Irradiate	itated	Unirra	disted	Irrad	iated	Unirrad	lated	Irrac	itated	Unirrad	iated	Irradi	ated	Jnirrac	Lated	Irrad	lated	Jnirrad	iated
	<u>چ</u>	52	ş.	2	ş.	22	Š.	22	Š	5 2	No.	52	No.	22	No.	2	No.	52	No.	2
Total wounds cultured	28	100	19	100	120	100	115	100	27	100	21	100	51	100	94	100	80	100	98	100
Sterile cultures	6	10.7	7	10.5	22	47.5	43	37.4	11	40.7	7	9.5	4	7.8	17	37.0	23	33.8	82	32.6
Organism:																				
Coagpos. staphylococci	٣	10.7	0	0.0	6	7.5	14	12.2	7	7.4	-	4.8	15	29.4	91	21.7	6	11.3	13	15.1
Coagneg. staphylococci	9	21.4	7	36.8	35	29.5	9	34.8	11	40.7	13	61.9	14	27.5	6	19.6	38	47.5	42	8.8
Alpha-hemolytic streptococci	0	0.0	0	0.0	4	3,3	ო	5.6	-	3.7	0	0.0	0	0.0	-	2.5	_	1.3	٣	3.5
Beta-hemolytic streptococci	0	0.0	0	0.0	9	5.0	7	1.7	-	3.7	0	0.0	0	0.0	7	4.3	-	1.3	7	2.3
Nonhemolytic streptococci	7	7.1	-	5,3	5	4.2	12	10.4	-	3.7	-	8.4	7	13.7		2.5	7	8.8	S	5.8
Anaerobic streptococci	0	0.0	0	0.0	-	8.0	-	6.0	0	0.0	0	0.0	7	3.9	0	0.0	0	0.0	0	0.0
Escherichia sp.	4	14.3	m	15.8	15	10.0	12	10.4	0	0.0	7	9.5	œ	15.7		2.2	4	5.0	٣	3.5
Aerobacter-Klebsiella	7	7.1	-	5,3	4	3,3	4	3.5	7	7.4	-	4.8	٣	5.9	4	8.7	2	6.3	7	2.3
Paracolobactrum sp.	0	0.0	0	0.0	7	1.7	m	5.6	-	3.7	0	0.0	-	5.0	က	6.5	٣	3.8	4	4.7
Proteus sp.	-	3.6	٣	15.8	7	1.7	۰	5.2	0	0.0	0	0.0	7	3.9	4	8.7	S	6.3	4	4.7
Pseudomonas ap.	0	0.0	0	0.0	-	8.0	٣	5.6	0	0.0	_	8.4	4	7.8	m	6.5	2	6.3	e	3.5
Clostridium sp.	0	0.0	0	0.0	0	0.0	-	6.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides ap.	0	0.0	0	0.0	-	8.0	0	0.0	-	3.7	0	0.0	٣	5.9	m	6.5	0	0.0	0	0.0
Other	13	7.97	4	21.1	7	8.8	6	7.8	6	33,3	∞	38.1	8	58.8	91	34.8	=	13.8	13	15.1
Unidentified	-	3.6	0	0.0	-	8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	8	-	1.3	0	0.0

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Clean-Contaminated Wounds That Did Not Develop Infection, by Ultraviolet Irradiation Status and by Individual Hospital

		Hospi	tal 1			Hospita	al 2			Hospi	al 3			Hospita	a1 4			Hospit	al 5	
	Irradia	itated	Unirra	itated	Irrad	isted U	nirradi	lated	Irrad	Lated	Intrrad	lated	Irradi	Lated U	nirradi	Lated	Irradi	ated U	nirrad	ated
	No.	24	No.	2	Мо.	2	8	14	<u>چ</u>	26	Š.	5 2	No.	24	No.		No.	*	No.	M
Total wounds cultured	18	100	22	100	23	100	90	100	12	100	17	100	43	100	55	100	31	100	5	<u>ء</u>
Sterile cultures		5.6	-	4.5	11	56.5	17	0.04	٥.	41.7	<u>ب</u>	17.6	,	16.3	9	10.9	٠	19.4	12	34.3
Organism:																				
Coagpos. staphylococci	-	5.6		4.5	-	4.3	4	13.3	7	16.7	_	5.9	12	27.9	13	23.6	7	22.6	2	14.3
Coagneg. staphylococci	4	22.2	9	27.3	5	21.7	7	23.3	7	16.7	7	41.2	11	25.6	16	29.1	11	35.5	12	34.3
Alpha-hemolytic streptococci	0	0.0	0	0.0	0	0.0		3,3	0	0.0	0	0.0	0	0.0	-	1.8	٣	7.6	7	5.7
Beta-hemolytic streptococci	0	0.0	0	0.0	0	0.0	-	3,3	7	8,3	0	0.0	7	4.7	-	1.8	0	0.0	7	5.7
Nonhemolytic streptococci	0	0.0	-	4.5	7	8.7	4	13,3	7	16.7	٣	17.6	9	14.0	9	10.9	-	3.2	٣	8.6
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	2.3	0	0.0	θ	0.0	0	0.0
Escherichia sp.	9	33.3	S	22.7	0	0.0	_	3,3	7	16.7	٠	29.4	œ	18.6	•	10.9	2	16.1	7	5.7
Aerobacter-Klebsiella	7	9.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	9.3	4	7.3	7	6.5	6	8.6
Paracolobactrum sp.	-	5.6	0	0.0	0	0.0	-	3,3	0	0.0	-	5.9	7	4.7	4	7.3	٣	7.6	٣	8.6
Proteus sp.		5.6	-	4.5	7	8.7		3,3	-	8,3	٣	17.6	m	7.0	4	7.3	٣	7.6	-	5.9
Pseudomonas sp.	0	0.0	-	4.5	4	17.4	7	6.7	7	16.7	7	11.8	9	14.0	7	3.6	2	16.1	٣	8.6
Clostridium sp.	0	0.0	0	0.0	0	0.0	0	0:0	0	0.0	-	5.9	7	2.3	0	0.0	-	3.2	0	0.0
Bacteroides sp.	0	0.0	0	0.0	0	0.0	0	0.0	-		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other	9	33,3	6	40.9	-	4.3	4	13.3	m	22.0	9	35.3	11	25.6	54	43.6	7	6.5	9	17.1
Unidentified	7	11.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	3.6	0	0.0	0	0.0

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Contaminated Wounds That Did Not Develop Infection, by Ultraviolet Irradiation Status and by Individual Hospital

		Hospi	tal 1			Hospita	tal 2			Hospita	tal 3			Hospita	tal 4			Hospital	5	
	Irradiated	iated	Unirra	diated	Irra	radiated	Unirrac	liated	Irrad	liated	Unirra	liated	Irrac	iated	Unirrad	ated	ĕ	liated	Inirrad	ated
		ę	•01	9		8	· ON	9	N	9	N	,	No.	9	So.	2	No.	2	Š.	%
Total wounds cultured	2	100	2	100	က	100	2	100	2	100	1	100	13	100	12	100	6	100	12	100
Sterile cultures	0	0.0	1	20.0	0	0.0	1	50.0	-	20.0	-	100	3	23.1	1	8.3	0	0.0	4	33.3
Organism:																				
Coagpos. staphylococci	0	0.0	0	0.0	1	33,3	0	0.0	0	0.0	0	0.0	2	38.5	4	33.3	٣	33.3	7	16.7
Coagneg. staphylococci	-	50.0	0	0.0	-	33.3	_	50.0	-	50.0	0	0.0	9	46.2	0	0.0	9	2.99	4	33,3
Alpha-hemolytic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	7.7	0	0.0	0	0.0	0	0.0
Beta-hemolytic streptococci	0	0.0	0	0.0	1	33,3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	8.3
Nonhemolytic streptococci	С	0.0	0	0.0	1	33.3	-	50.0	1	50.0	0	0.0	2	15.4	e	25.0	0	0.0	1	8.3
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	-	50.0	0	0.0	7	2.99	0	0.0	-	50.0	0	0.0	-	7.7	2	41.7	-	11.1	0	0.0
Aerobacter-Klebsiella	0	0.0	0	0.0	1	33.3	-	20.0	0	0.0	0	0.0	7	15.4	က	25.0	1	11.1	0	0.0
Paracolobactrum sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	7.7	0	0.0	7	22.2	0	0.0
Proteus sp.	0	0.0	_	20.0	7	66.7	0	0.0	0	0.0	0	0.0	-	7.7	0	0.0	-	11.1	0	0.0
Pseudomonas sp.	0	0.0	0	0.0	-	33.3	-	50.0	0	0.0	0	0.0	7	7.7	_	8,3	0	0.0		8,3
Clostridium sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0	-	50.0	0	0.0	0	0.0	٣	23.1	-	8.3	_	11.1	-	8,3
Unidentified	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Frequency of Organisms Recovered From Cultures of Postoperative Drainage of Dirty Wounds That Did Not Develop Infection, by Ultraviolet Irradiation Status and by Individual Hospital

		Hospita	tal l			Hospita	:al 2			Hospita	tal 3			Hospital	al 4			Hospital	5 183	
	Irradia	ated	Unirrad	iated	Irrad		Unirradiate	iated	Irrad	rradiated	Unirradiate	iated	Irrad	diated	Unirradiate	iated	Irrad	liated	Inirrac	ate
	No.	2	No.	%	No.	No. %	No.	2	No.	%	No.	2	No.		No.	%	No.	2	No.	2
Total wounds cultured	2	100	-	100	2	100	2	100	-	100	m	100	18	100	18	100	4	100	7	100
Sterile wounds	0	0.0	0	0.0	1	20.0	-	50.0	0	0.0	1	33,3	7	11.1	4	22.2	-	25.0	-	14.3
Organism:																				
Coagpos. staphylococci	0	0.0	0	0.0	2	0.04	-	50.0	0	0.0	0	0.0	7	22.2	0	0.0	0	0.0	-	14.3
Coagneg. staphylococci	7	50.0	0	0.0	-	20.0	0	0.0	0	0.0	7	66.7	7	11.1	2	11.1	7	25.0	7	28.6
Alpha-hemolytic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	9.6	0	0.0	0	0.0
Beta-hemolytic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	5.6	0	0.0	0	0.0	-	14.3
Nonhemolytic streptococci	0	0.0	0	0.0	0	0.0	-	20.0	0	0.0	0	0.0	7	11.1	-	5.6	0	0.0	-	14.3
Anaerobic streptococci	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Escherichia sp.	0	0.0	-	100	0	0.0	0	0.0	-	100	7	66.7	6	50.0	9	33,3	-	25.0	7	28.6
Aerobacter-Klebsiella	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	9.6	1	5.6	0	0.0	-	14.3
Paracolobactrum sp.	0	0.0	0	0.0	-	20.0	0	0.0	0	0.0	0	0.0	0	0.0	-	9.6	0	0.0	٣	42.9
Proteus sp.	0	0.0	0	0.0	7	20.0	0	0.0	0	0.0	0	0.0		9.6	7	11.1	0	0.0	7	28.6
Pseudomonas sp.	0	0.0	-	100	0	0.0		50.0	0	0.0	0	0.0	٣	16.7	٣	16.7	-	25.0	0	0.0
Clostridium sp.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bacteroides sp.	0	0.0	0	0.0	0	0.0	0	0.0	7	100	0	0.0	-	9.6	0	0.0	0	0.0	0	0.0
Other	-	50.0	0	0.0	0	0.0	0	0.0	0	0.0	_	33,3	œ	4.4.4	2	27.8	7	50.0		14.3
Unidentified	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0